Calvert Cliffs Nuclear Power Plant Unit 3

Combined License Application

Part 10: Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) and ITAAC Closure

Revision 7
December 2010

This COLA Part includes RCOLA generic text. Site Specific Text is enclosed in braces: {Site Specific Information}

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Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) and ITAAC Closure

APPENDIX A- PROPOSED COMBINED LICENSE CONDITIONS

1. INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA (ITAAC)

There are several ITAAC identified in the COL application. Once incorporated into the COL, regulations identify the requirements that must be met.

The ITAAC identified in the tables in Appendix B of Part 10 of the COL application are incorporated into this Combined License. After the Commission has made the finding required by 10 CFR 52.103(g), the ITAAC do not constitute regulatory requirements; except for specific ITAAC, which are the subject of a Section 103(a) hearing, their expiration will occur upon final Commission action in such proceeding.

2. COL ITEMS

There are several COL items that can not be resolved prior to issuance of the Combined License. The referenced U.S. EPR FSAR and the COL application FSAR together: 1) justify why each of these COL items can not be resolved before the COL is issued; 2) provides sufficient information on these items to support the NRC licensing decision; and 3) identifies an appropriate implementation milestone. Therefore, in accordance with the guidance in Regulatory Guide 1.206, Section C.III.4.3, the following Combined License Condition is proposed to address these COL items.

PROPOSED LICENSE CONDITION:

Each COL item identified below shall be completed by the identified implementation milestone through completion of the action identified.

<u>COL Item 3.4-4 in Section 3.4.1</u>

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} will perform internal flooding analyses prior to fuel load for the Safeguard Buildings and Fuel Building to demonstrate that the impact of internal flooding is contained within the Safeguard Buildings or Fuel Building division of origin.

<u>COL Item 3.4-5 in Section 3.4.1</u>

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} will perform an internal flooding analysis prior to fuel load for the Reactor Building and Reactor Building Annulus to demonstrate that the essential equipment required for safe shutdown is located above the internal flood level.

<u>COL Item 3.4-6 in Section 3.4.1</u>

The maintenance program for watertight door preventive maintenance will be in accordance with manufacturer recommendations so that each Safeguards Building watertight door above elevation +0 feet remains capable of performing its intended function. The program will be in place prior to fuel load.

<u>COL Item 3.4-7 in Section 3.4.2</u>

The seal between the Access Building and the adjacent Category I access path to the Reactor Building Tendon Gallery will be designed to be watertight. The watertight seal design will account for hydrostatic loads, lateral earth pressure loads, and other applicable loads. The seal will be in place prior to fuel load.

COL Item 3.5–1 in Section 3.5.1.2

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall establish plant procedural controls to ensure that unsecured maintenance equipment, including that required for maintenance and that are undergoing maintenance, will be removed from containment prior to operation, moved to a location where it is not a potential hazard to SSCs important to safety, or seismically restrained to prevent it from becoming a missile. Prior to initial fuel load, this requirement shall be incorporated into a plant procedure that controls the conduct of maintenance.

COL Items 3.6–1 and 3.6–2 in Sections 3.6.1 and 3.6.2.1

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall perform a pipe break hazard analysis as part of the piping design. It is used to identify postulated break locations and layout changes, support, design, whip restraint design, and jet shield design. The final design for these activities shall be completed prior to fabrication and installation of the piping and connected components. The as-built reconciliation of the pipe break hazards analysis shall be completed prior to fuel load.

COL Item 3.6–4 in Section 3.6.2.5.1

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall provide the diagrams showing the final as-designed configurations, locations, and orientations of the pipe whip restraints in relation to break locations in each piping system prior to fabrication and installation of the piping system.

COL Item 3.6–3 in Section 3.6.3

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall confirm that the design Leak-Before-Break (LBB) analysis remains bounding for each applicable as-built piping system. A summary of the results of the actual as-built, plant-specific LBB analysis, including material properties of piping and welds, stress analyses, leakage detection capability, and degradation mechanisms will be provided prior to fuel load.

COL Item 3.6–5 in Section 3.6.3

The ISI program will be augmented with NRC approved ASME Code cases that are developed and approved for augmented inspections of Alloy 690/152/52 material to address PWSCC concerns prior to fuel load.

COL Item 3.7–5 in Section 3.7.4.2.1

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall determine the location for the free-field acceleration sensor in accordance with the guidance provided in Regulatory Guide 1.12 prior to fuel load.

COL Item 3.9–1 in Section 3.9.2.4

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall submit the results from the vibration assessment program for the U.S. EPR Reactor Pressure Vessel internals, in accordance with Regulatory Guide 1.20.

COL Item 3.9-2 in Section 3.9.3

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall prepare the design specifications and design reports for ASME Class 1, 2, and 3 components that comply with and are certified to the requirements of Section III of the ASME Code. The results and conclusions from the reactor internals material reliability programs applicable to the U.S. EPR reactor internals with regard to known aging degradation mechanisms such as irradiation-assisted stress corrosion cracking and void swelling will also be addressed prior to fuel load. The design specifications shall be prepared prior to procurement of the components while the ASME code reports shall be prepared during as-built reconciliation of the systems and components conducted prior to fuel load.

COL Item 3.9-11 in Section 3.9.3.1

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall provide a summary of the maximum total stress, deformation (where applicable), and cumulative usage factor values for each of the component operating conditions for ASME Code Class 1 components. For those values that differ from the allowable limits by less than 10 percent, {Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall provide the contribution of each of the loading categories (e.g., seismic, pipe rupture, dead weight, pressure, and thermal) to the total stress for each maximum stress value identified in this range. This information shall be supplied prior to procurement of the ASME Code Class 1 components.

The maximum total stress and deformation values for each operating condition for Class 2 & 3 components required for safe shutdown of the reactor, or mitigation of consequences of a postulated piping failure without offsite power will be provided prior to fuel load. Identification of those values that differ from the allowable limits by less than 10 percent will also be provided prior to fuel load.

COL Item 3.9-5 in Section 3.9.3.1.1

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall route, during detailed design, Class 1, 2, or 3 piping not included in the U.S. EPR design certification in a manner so that it is not exposed to wind or tornadoes.

COL Items 3.9-3 and 3.9-4

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall:

- Confirm that thermal deflections do not create adverse conditions during hot functional testing.

- Examine the feedwater line welds after hot functional testing prior to fuel loading and at the first refueling outage, and will report the results of the inspections to the NRC, in accordance with NRC Bulletin 79-13.

COL Item 3.9-7 in Section 3.9.6

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall submit the Preservice Testing Programs and Inservice Testing Programs to the NRC prior to performing the tests and following the start of construction and prior to the anticipated date of commercial operation, respectively. The implementation milestones for these programs are provided in {CCNPP Unit 3} FSAR Table 13.4-1. These programs shall include the implementation milestones and applicable ASME OM Code and shall be consistent with the requirements in the latest edition and addenda of the OM Code incorporated by reference in 10 CFR 50.55a on the date 12 months before the date for initial fuel load.

COL Items 3.9–9 and 3.9–10 in Section 3.9.1.2

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall perform the required pipe stress and support analysis and shall utilize a piping analysis program based on the computer codes described in U.S. EPR FSAR Section 3.9.1 and U.S. EPR FSAR Appendix 3C.

COL Item 3.9–12 in Section 3.9.6.4

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall provide a table identifying the safety-related systems and components that use snubbers in their support systems, including the number of snubbers, type (hydraulic or mechanical), applicable standard, and function (shock, vibration, or dual-purpose snubber). For snubbers identified as either a dual-purpose or vibration arrester type, {Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall denote whether the snubber or component was evaluated for fatigue strength. This information shall be provided prior to installation of any of the snubbers.

COL Item 3.9–14 in Section 3.9.5.2

A summary of reactor core support structure maximum total stress, deformation, and cumulative usage factor values will be provided for each component and each operating condition in conformance with ASME Section III Subsection NG prior to fuel load.

COL Item 3.10–1 in Section 3.10.4

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall create and maintain the Seismic Qualification Data Package (SQDP) file. This activity shall be initiated during the equipment selection and procurement phase. The SQDP file shall be maintained for the life of the plant.

COL Item 3.10–3 in Section 3.10.4

The seismic and dynamic qualification implementation program, including milestones and completion dates, shall be developed and submitted for U.S. Nuclear Regulatory Commission approval prior to installation of the applicable equipment.

COL Item 3.11–1 in Section 3.11

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall develop and maintain 1) a list of electrical equipment meeting the criteria of 10 CFR 50.49 and 2) a record of qualification for each applicable electrical equipment type. The record shall contain the necessary environmental qualification information to meet the requirements of 10 CFR 50.49. This information will be stored and retained in accordance with the Quality Assurance Program Description or QAPD. This information will remain current and in an auditable form that meets requirements of 10 CFR 50.49(j) and the QAPD.

COL Item 3.11–3 in Section 3.11.3

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall develop and submit the equipment qualification testing program, including milestones and completion dates, prior to installation of the applicable equipment.

COL Item 3.12-1 in Section 3.12.4.2

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall perform a review of the impact of contributing mass of supports on the piping analysis following the final support design to confirm that the mass of the support is no more than ten percent of the mass of the adjacent pipe span.

COL Item 3.12-2 in Section 3.12.4.3

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall use piping analysis programs listed in Section 5.1 of the referenced topical report (ANP-10264 NP-A).

COL Item 3.12-3 in Section 3.12.5.9

The RHR/SIS/ EBS injection piping from the RCS to the first isolation valve (all four trains), and RHR/SIS suction piping from the RCS to the first isolation valve (trains 1 and 4) will be monitored during the first cycle of the first U.S. EPR initial plant operation to verify that operating conditions have been considered in the design unless data from a similar plant's operation demonstrates that thermal oscillation is not a concern for piping connected to the RCS.

COL Item 3.12-4 in Section 3.12.5.10.1

The pressurizer surge line temperatures will be monitored during the first fuel cycle of initial plant operation to verify that the design transients for the surge line are representative of actual plant operations unless data from a similar plant's operation determines that monitoring is not warranted.

COL Item 3.12-5 in Section 3.12.5.10.3

The normal spray line temperatures will be monitored during the first cycle of the first U.S. EPR initial plant operation to verify that the design transients for the normal spray are representative of actual plan operations unless data from a similar plant's operation determines that monitoring is not warranted.

COL Item 3.12-6 in Section 3.12.5.10.4

The temperature of the main feedwater lines will be monitored during the first cycle of the first U.S. EPR initial plant operation to verify that the design transients for the main feedwater lines are representative of actual plant operations unless data from a similar plant's operation determines that monitoring is not warranted.

COL Item 3.13-1 in Section 3.13.2

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall submit the inservice inspection program for ASME Class 1, Class 2, and Class 3 threaded fasteners to the NRC prior to performing the first inspection. The program will identify the applicable edition and addenda of ASME Section XI and ensure compliance with the requirements of 10 CFR 50.55a(b)(2)(xxvii).

COL Item 5.2-3 in Section 5.2.4 and COL Item 6.6-1 in Section 6.6

The initial inservice inspection program for Class 1, 2 and 3 components shall incorporate the latest edition and addenda of the ASME Boiler and Pressure Vessel Code approved in 10 CFR 50.55a(b) on the date 12 months before initial fuel load.

COL Item 5.3‑2 in Section 5.3.2.1

A plant‑specific Pressure and Temperature Limits Report shall be provided in accordance with {CCNPP Unit 3} Technical Specification 5.6.4, "Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR)," and shall be based on the methodology provided in ANP‑10283P, Revision 1, prior to initial fuel load.

COL Item 5.3‑3 in Section 5.3.2.3

The plant‑specific RT_{PTS} values for vessel beltline materials will be determined in accordance with 10 CFR 50.61 and provided to the NRC within one year of acceptance of the reactor vessel by the licensee.

COL Item 5.4‑1 in Section 5.4.2.5.2.2

The Steam Generator Tube Inspection Program shall incorporate the latest edition and addenda of the ASME Boiler and Pressure Vessel Code approved in 10 CFR 50.55a(b) on the date 12 months before initial fuel load.

COL Item 6.1‑1 in Section 6.1.1.1

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall include, or require its contractors to include, a review of special processes such as fabrication and welding procedures and other QA methods to verify conformance with Regulatory Guides 1.31 and 1.44 for ESF components as part of the procurement process. The procurement process will be established prior to purchasing ESF components.

This will ensure that conformance with RG 1.31 and 1.44 will be established within the appropriate vendor processes prior to initiation of any fabrication activity that would be subject to NRC construction inspection program.

COL Item 6.1‑2 in Section 6.1.2

During component procurement, if components cannot be procured with Design Basis Accident (DBA)‑qualified coatings applied by the component manufacturer, {Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall do one of the following: Procure the component as uncoated and apply a DBA‑qualified coating system in accordance with 10 CFR 50, Appendix B, Criterion IX; Confirm that the DBA‑unqualified coating is removed and that the component is recoated with DBA‑qualified coatings in accordance with 10 CFR 50, Appendix B, Criterion IX; Add the quantity of DBA‑unqualified coatings to a list that documents those DBA‑unqualified coatings already existing within containment. The DBA‑qualified (i.e., Service Level 1) coating will be applied in accordance with the applicable standards stated in Regulatory Guide 1.54, Rev. 1 (NRC, 2000), except as modified by U.S. EPR FSAR Section 6.1.2.4.

COL Item 6.4‑2 in Section 6.4.3

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall provide written emergency planning and procedures for use in the event of a radiological or hazardous chemical release within or near the plant, and will provide training of control room personnel, prior to receipt of fuel onsite at {CCNPP Unit 3}.

COL Item 7.1‑1 in Section 7.5.2.2.1

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} will update the initial inventory list of accident monitoring variables including variable types in Table 7.5‑1—Initial Inventory of Post‑Accident Monitoring Variables, with a final list upon completion of the emergency procedure guidelines or the emergency operating and abnormal operating procedures prior to fuel loading.

COL Item 8.3–1 in Section 8.3.1.1.5

Prior to initial fuel load, {Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall establish procedures to monitor and maintain Emergency Diesel Generator reliability to verify the selected reliability level goal of 0.95 is being achieved as intended by Regulatory Guide 1.155.

COL Item 9.5–16 in Section 9.5.1.2.1

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall perform an as-built, post-fire Safe Shutdown Analysis, including final plant cable routing, fire barrier ratings, purchased equipment, equipment arrangement and a review against the assumptions and requirements contained in the Fire Protection Analysis. The post-fire Safe Shutdown Analysis will demonstrate that safe shutdown performance objectives are met prior to fuel loading and will include a post-fire safe shutdown circuit analysis based on the methodology described in NEI 00-01 (NEI, 2001).

COL Item 9.5–17 in Section 9.5.1.3

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall evaluate the differences between the as-designed and as-built plant configuration to confirm the Fire Protection Analysis remains bounding. This evaluation will consider the final plant cable routing, fire barrier ratings, combustible loading, ignition sources, purchased equipment, equipment arrangement and includes a review against the assumptions and requirements contained in the Fire Protection Analysis. A summary of the results of the evaluation, including any identified deviations from the FSAR and confirmation that the Fire Protection Analysis remains bounding, will be provided prior to fuel load.

COL Item 10.2–2 in Section 10.2.3.1

Following procurement of the {CCNPP Unit 3} turbine generator, {Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall submit to the NRC the applicable material data for the turbine rotor.

COL Item 10.2–3 in Section 10.2.3.2

Following procurement of the {CCNPP Unit 3} turbine generator, {Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall submit to the NRC the applicable turbine disk rotor specimen test data, load-displacement data from the compact tension specimens and the fracture toughness properties to demonstrate that the associated information and data presented in the U.S. EPR FSAR is bounding.

COL Item 10.3–2 in Section 10.3.6.3

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} will develop and implement a FAC condition monitoring program that is consistent with Generic Letter 89-08 and NSAC-202L-R3 for the carbon steel portions of the steam and power conversion systems that contain water or wet steam prior to initial fuel loading.

COL Item 11.5–3 in Section 11.5.2

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operation Services, LLC} will develop PERMSS subsystem’s LLDs or detection sensitivities, and setpoints (alarms and process termination/diversion) for liquid and gaseous process radiation monitoring equipment not covered by the ODCM based on plant and site specific conditions and operating characteristics of each installed radiation monitoring subsystem prior to initial fuel load.

COL Item 14.2–2 in Section 14.2.11

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall develop a test program that considers the components identified in FSAR Section 14.2.11 and shall provide copies of approved test procedures to the NRC at least 60 days prior to their scheduled performance date.

COL Item 14.2–6 in Section 14.2.12

The natural circulation test (Test #196) will be performed prior to fuel load or justification will be provided for not performing the test. The need to perform the test will be based on evaluation of previous natural circulation test results and a comparison of reactor coolant system (RCS) hydraulic resistance coefficients applicable to normal flow conditions.

COL Item 14.2–11 in Section 14.2.9

Specific operator training and participation, as described in the U.S. EPR FSAR Section 14.2.9 will be conducted.

COL Item 15.0–1 in Section 15.0

The analysis results demonstrating that the uncompensated DNBR and LPD satisfies the SAFDL with a 95/95 assurance in accordance with ANP-10287P will be provided for staff review, prior to the first cycle of operation.

COL Item 18.1–1 in Section 18.1

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall execute the NRC approved Human Factors Engineering program as described in U.S. EPR FSAR Section 18.1.

COL Item 18.12–1 in Section 18.12

Prior to initial fuel load, {Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall implement a Human Performance Monitoring Program consistent to the one described in FSAR Section 18.12.

COL Item 19.1–9 in Section 19.1.2.2

As-designed and as-built information shall be reviewed, and walk-downs shall be performed, as necessary, to confirm that the assumptions used in the Probabilistic Risk Assessment (PRA), including design certification related PRA assumptions found in U.S. EPR FSAR Table 19.1-109 and PRA inputs to the Reliability Assurance Program and Severe Accident Mitigation Design Alternatives, remain valid with respect to internal events, internal flooding and fire events (routings and locations of pipe, cable and conduit), and Human Reliability Assurance (i.e., development of operating procedures, emergency operating procedures and severe accident management guidelines and training), external events including PRA-based seismic margins, high confidence, low probability of failure fragilities, and low power shutdown procedures. These activities shall be performed prior to initial fuel load.

COL Item 19.1–4 in Section 19.1.2.3

A peer review of the PRA relative to the ASME PRA Standard shall be performed prior to use of the PRA to support risk-informed applications or before initial fuel load.

COL Item 19.1–5 in Section 19.1.2.4.1

The {CCNPP Unit 3} PRA shall be treated as a living document. A PRA Configuration Control Program shall be put in place to maintain (update) or upgrade the PRA, as defined in ASME Standard RA-Sc 2007 and as clarified by Regulatory Guide 1.200.

COL Item 19.2–1 in Section 19.2.5

Severe accident management guidelines will be developed and implemented prior to fuel loading using the Operating Strategies for Severe Accidents (OSSA) methodology described in U.S. EPR FSAR Section 19.2.5.

3. OPERATIONAL PROGRAM IMPLEMENTATION

The provisions of the regulations address implementation milestones for some operational programs. The NRC will use license conditions to ensure implementation for those operational programs whose implementation is not addressed in the regulations. COL application FSAR Table 13.4-1 identifies several programs required by regulations that must be implemented by a milestone to be identified in a license condition.

PROPOSED LICENSE CONDITION:

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall implement the programs or portions of programs identified in FSAR Table 13.4-1 on or before the associated milestones in FSAR Table 13.4-1.

4. FIRE PROTECTION PROGRAM REVISIONS

An implementation license condition approved in the Staff Requirements Memorandum (SRM) regarding SECY-05-0197 applies to the fire protection program.

PROPOSED LICENSE CONDITION:

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall implement and maintain in effect the provisions of the fire protection program as described in the Final Safety Analysis Report for the facility. The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

5. SECURITY PLAN REVISIONS

An implementation license condition approved in the SRM regarding SECY-05-0197 applies to the security program.

PROPOSED LICENSE CONDITION:

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall fully implement and maintain in effect the provisions of the Security Plan, which consists of the physical security plan, security personnel training and qualification plan, safeguards contingency plan and the cyber security plan, and all amendments made pursuant to the authority of 10 CFR 50.90, 50.54(p), 52.97, and the relevant portions of Part 52 for the U.S. EPR Design Certification after rulemaking when nuclear fuel is first received onsite, and continuing until all nuclear fuel is permanently removed from the site.

6. OPERATIONAL PROGRAM READINESS

The NRC inspection of operational programs will be the subject of the following license condition in accordance with SECY-05-0197.

PROPOSED LICENSE CONDITION:

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall submit to the appropriate Director of the NRC, a schedule, no later than 12 months after issuance of the COL, that supports planning for and conduct of NRC inspections of operational programs listed in the operational program FSAR Table 13.4-1. The schedule shall be updated every 6 months until 12 months before scheduled fuel loading, and every month thereafter until either the operational programs in the FSAR table have been fully implemented or the plant has been placed in commercial service, whichever comes first.

7. STARTUP TESTING

COL application FSAR Section 14.2 specifies certain startup tests that must be completed after fuel load. Operating licenses typically have included the following condition related to startup testing.

PROPOSED LICENSE CONDITION:

Any changes to the Initial Startup Test Program described in Chapter 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 or the relevant portions of Part 52 for the U.S. EPR Design Certification after rulemaking shall be reported in accordance with 50.59(d) within one month of such change.

8. EMERGENCY ACTION LEVELS

The {CCNPP Unit 3} Emergency Action Levels (EALs) and the associated Technical Bases Manual contains bracketed values requiring plant specific values to be provided that can not be determined until after the COL is issued. These bracketed values are associated with certain site specific values and detailed design information, such as setpoints and instrument numbers. In most cases, this information is necessary to determine EAL thresholds.

PROPOSED LICENSE CONDITION:

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall submit a complete set of plant-specific Emergency Action Levels (EALs) for {CCNPP Unit 3} in accordance with NEI 99-01 Revision 5 to the NRC for confirmation at least 180 days prior to initial fuel load. The submitted EALs will be written with no deviations other than those attributable to specific U.S. EPR reactor design considerations.

9. ENVIRONMENTAL PROTECTION PLAN

Operating licenses typically have included the following condition related to environmental protection.

PROPOSED LICENSE CONDITION:

The issuance of this COL, subject to the Environmental Protection Plan and the conditions for the protection of the environment set forth herein, is in accordance with the National Environmental Policy Act of 1969, as amended, and with applicable sections of 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," as referenced by Subpart C of 10 CFR Part 52, "Early Site Permits; Standard Design

Certifications; and Combined Licenses for Nuclear Power Plants," and all applicable requirements therein have been satisfied.

ENVIRONMENTAL PROTECTION PLAN (NONRADIOLOGICAL)

1.0 Objectives of the Environmental Protection Plan

The purpose of the Environmental Protection Plan (EPP) is to provide for protection of nonradiological environmental resources during construction and operation of the nuclear facility. The principal objectives of the EPP are as follows:

1. Verify that the facility is operated in an environmentally acceptable manner, as established by the Final Environmental Impact Statement (FEIS) and other NRC environmental impact assessments.
2. Coordinate NRC requirements and maintain consistency with other Federal, State and local requirements for environmental protection.
3. Keep NRC informed of the environmental effects of facility construction and operation and of actions taken to control those effects.

Environmental concerns identified in the FEIS which relate to water quality matters are regulated by way of the licensee's {NPDES} permit.

2.0 Environmental Protection Issues

In the FEIS dated [month year], the staff considered the environmental impacts associated with the construction and operation of the {Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3}. Certain environmental issues were identified which required study or license conditions to resolve environmental concerns and to assure adequate protection of the environment. The objective of this Environmental Protection Plan is to ensure that impacts associated with construction and operation for {CCNPP Unit 3} in accordance with the facility combined operating license (COL) will not exceed in any significant respect the impacts assessed in the FEIS.

2.1 Aquatic Issues

No specific nonradiological aquatic impact issues were identified by NRC staff in the FEIS.

2.2 Terrestrial Issues

No specific nonradiological terrestrial impact issues were identified by NRC staff in the FEIS.

3.0 Consistency Requirements

3.1 Plant Design, Construction, and Operation Activities

The licensee may make changes in plant design or operation or perform tests or experiments affecting the environment provided such activities do not involve an unreviewed environmental question and do not involve a change in the EPP (note: this provision does not relieve the licensee of the requirements of 10 CFR 50.59 or the change requirements established in the applicable Appendix of 10 CFR 52). Changes in plant design or operation or performance of tests or experiments which do not affect the environment are not subject to the requirements of this EPP. Activities governed by Section 3.3 are not subject to the requirements of this section.

Before engaging in additional construction or operational activities which may significantly affect the environment, the licensee shall prepare and record an environmental evaluation of such activity. Activities are excluded from this requirement if all measurable nonradiological environmental effects are confined to the on-site-areas previously disturbed during site preparation and plant construction. When the evaluation indicates that such activity involves an unreviewed environmental question, the licensee shall provide a written evaluation of such activity and obtain prior NRC approval. When such activity involves a change in the EPP, such activity and change to the EPP may be implemented only in accordance with an appropriate license amendment as set forth in Section 5.3 of this EPP.

A proposed change, test or experiment shall be deemed to involve an unreviewed environmental question if it concerns: (1) a matter which may result in a significant increase in any adverse environmental impact previously evaluated in the FEIS, environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing Board; or (2) a significant change in effluents or power level; or (3) a matter, not previously reviewed and evaluated in the documents specified in (1) of this Subsection, which may have a significant adverse environmental impact.

The licensee shall maintain records of changes in facility design or operation and of tests and experiments carried out pursuant to this Subsection. These records shall include written evaluations which provide bases for the determination that the change, test, or experiment does not involve an unreviewed environmental question or constitute a decrease in the effectiveness of this EPP to meet the objectives specified in Section 1.0. The licensee shall include as part of the Annual Environmental Operating Report (per Subsection 5.4.1) brief descriptions, analyses, interpretations, and evaluations of such changes, tests and experiments.

3.2 Reporting Related to the {NPDES} Permit and State Certification

Changes to, or renewals of, the {NPDES} Permits or the State certification shall be reported to the NRC within 30 days following the date the change or renewal is approved. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 30 days following the date the stay is granted.

The licensee shall notify the NRC of changes to the effective {NPDES} Permit proposed by the licensee by providing NRC with a copy of the proposed change at the same time it is submitted to the permitting agency. The licensee shall provide the NRC a copy of the application for renewal of the {NPDES} Permit at the same time the application is submitted to the permitting agency.

3.3 Changes Required for Compliance with Other Environmental Regulations

Changes in plant design or operation and performance of tests or experiments which are required to achieve compliance with other Federal, State, and local environmental regulations are not subject to the requirements of Section 3.1.

4.0 Environmental Conditions

4.1 Unusual or Important Environmental Events

The licensee shall evaluate and report to the NRC Operations Center within 24 hours (followed by a written report in accordance with Section 5.4) any occurrence of an unusual or important event that indicates or could result in significant environmental impact causally related to the construction activities or plant operation. The following are examples of unusual or important environmental events: onsite plant or animal disease outbreaks, mortality or unusual occurrence of any species protected by the

Endangered Species Act of 1973, unusual fish kills, unusual increase in nuisance organisms or conditions, and unanticipated or emergency discharge of waste water or chemical substances. Routine monitoring programs are not required to implement this condition.

4.2 Environmental Monitoring

4.3 Aquatic Monitoring

No specific nonradiological aquatic monitoring requirements were identified by NRC staff in the FEIS.

4.4 Terrestrial Monitoring

No specific nonradiological terrestrial monitoring requirements were identified by NRC staff in the FEIS.

5.0 Administrative Procedures

5.1 Review and Audit

The licensee shall provide for review and audit of compliance with the EPP. The audits shall be conducted independently; they may not be conducted by the individual or groups responsible for performing the specific activity. A description of the organizational structure utilized to achieve the independent review and audit function and results of the audit activities shall be maintained and made available for inspection.

5.2 Records Retention

The licensee shall make and retain records associated with this EPP in a manner convenient for review and inspection and shall make them available to the NRC on request.

The licensee shall retain records of construction and operation activities determined to potentially affect the continued protection of the environment for the life of the plant. The licensee shall retain all other records relating to this EPP for five years or, where applicable, in accordance with the requirements of other agencies.

5.3 Changes in the Environmental Protection Plan

Requests for changes in the EPP shall include an assessment of the environmental impact of the proposed change and a supporting justification. Implementation of such changes in the EPP shall not commence prior to NRC approval of the proposed changes in the form of a permit amendment incorporating the appropriate revision to the EPP.

5.4 Reporting Requirements

5.4.1 Routine Reports

An Annual Nonradiological Environmental Report describing implementation of this EPP for the previous year shall be submitted to the NRC prior to June 1 of each year. The initial report shall be submitted prior to June 1 of the year following issuance of the operating license.

The report shall include summaries and analyses of the results of the environmental protection activities required by Section 4.2 of this EPP for the report period, including a comparison with related preoperational studies, operational controls (as appropriate), and previous nonradiological environmental monitoring reports, and an assessment of the observed impacts of the plant operation on the environment. If harmful effects or evidence of trends toward irreversible damage to the environment are observed, the licensee shall provide a detailed analysis of the data and a proposed course of mitigating action.

The Annual Nonradiological Environmental Report shall also include:

a. A list of EPP noncompliances and the corrective actions taken to remedy them.

b. A list of changes in plant design or operation, tests, and experiments made in accordance with Section 3.1 which involved a potentially significant unreviewed environmental question.

c. A list of non-routine reports submitted in accordance with Subsection 5.4.2.

In the event that some results are not available by the report due date, the report shall be submitted noting and explaining the missing results. The missing results shall be submitted as soon as possible in a supplementary report.

5.4.2 Nonroutine Reports

The licensee shall submit a written report to the NRC within 30 days of occurrence of any event described in Section 4.1 of this plan. The report should:

a. describe, analyze, and evaluate the event, including the extent and magnitude of the impact, and site preparation and preliminary construction activities underway at the time of the event,

b. describe the likely cause of the event,

c. indicate the action taken to correct the reported event,

d. indicate the corrective action taken to preclude repetition of the event and to prevent similar occurrences involving similar site preparation and preliminary construction activities, and

e. indicate the agencies notified and their preliminary responses.

For events reportable under this subsection that also require reports to other Federal, State or local agencies, the licensee shall report in accordance with those reporting requirements in lieu of the requirements of this subsection. The licensee shall provide the NRC with a copy of such report at the same time it submits it to the other agency.

APPENDIX B- INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA (ITAAC)

1. TIER 1 INFORMATION

U.S. EPR FSAR Tier 1 is incorporated by reference {with the following departure}.

{For CCNPP Unit 3, the detection of toxic gases and subsequent isolation of the Control Room Envelope (CRE) is not required and is not part of the site-specific design bases. The evaluation of the CCNPP Unit 3 toxic chemicals in Section 2.2.3 did not identify any credible toxic chemical accidents. As a result, toxic gas detectors and isolation are not required and will not be provided at CCNPP Unit 3, therefore the toxic gas detectors and isolation testing Tier 1 requirements in the U.S. EPR FSAR Section 2.6.1, Main Control Room Air Conditioning System are not applicable to CCNPP Unit 3. The following changes are required in Section 2.6.1:

Revised text for CCNPP Unit 3 - U.S. EPR Tier 1 FSAR Section 2.6.1, Table 2.6.1-3

Table 2.6.1-3—Main Control Room Air Conditioning ITAAC

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
6.3	Not Used	Not Used	Not Used

}

2. COL APPLICATION ITAAC

The ITAAC for the COLA are provided in tabular form, consistent with the format shown in Section 3.1, Regulatory Guide 1.206, Table C.II.1-1.

Table 2.2-1, Physical Security ITAAC is added as a supplement to the U.S. EPR FSAR Tier 1.

The COL Application-ITAAC consist of the following four parts.

1. Design Certification ITAAC (Section 2.1)
2. Physical Security ITAAC (Section 2.2)
3. Emergency Planning ITAAC (Section 2.3)
4. Site-Specific ITAAC (Section 2.4)

Completion of the ITAAC is a proposed condition of the combined license to be satisfied prior to fuel load.

2.1 Design Certification ITAAC

The Design Certification ITAAC are contained in U.S. EPR FSAR Tier 1, which is incorporated by reference in Section 1.

2.2 Physical Security ITAAC

The Physical Security ITAAC are contained in U.S. EPR FSAR Tier 1, which is incorporated by reference in Section 1. Site-specific physical security ITAAC are provided in Table 2.2-1, Physical Security ITAAC. The site-specific ITAAC were selected based on the interface requirements in FSAR Section 14.3.

Table 2.2-1— Physical Security ITAAC
(Page 1 of 4)

Design Commitment	Inspections. Tests. Analyses	Acceptance Criteria
1. Access to vital equipment requires passage through at least two physical barriers.	1. Vital equipment physical barriers will be inspected.	1. Vital equipment is located within a protected area such that access to the vital equipment requires passage through at least two physical barriers.
2. (a) Physical barriers for the protected area perimeter are not part of vital area barriers. (b) Penetrations through the protected area barrier whose path area exceeds the minimum specified in the site-specific Security Assessment are secured and monitored. (c) Unattended openings that intersect a security boundary, such as underground pathways, whose path area exceeds the minimum specified in the site-specific Security Assessment are protected by a physical barrier and monitored by intrusion detection equipment or provided surveillance at a frequency sufficient to detect exploitation.	2. (a) The protected area perimeter barriers will be inspected (b) Penetrations through the protected area barrier whose path area exceeds the minimum specified in the site-specific Security Assessment will be inspected. (c) Unattended openings within the protected area whose path area exceeds the minimum specified in the site-specific Security Assessment barriers will be inspected.	2. (a) Physical barriers at the perimeter of the protected area are separated from any other barrier designated as a vital area barrier. (b) Penetrations and openings through the protected area barrier whose path area exceeds the minimum specified in the site-specific Security Assessment are secured and monitored by intrusion detection equipment. (c) Unattended openings whose path area exceeds the minimum specified in the site-specific Security Assessment (such as underground pathways) that intersect a security boundary (such as the protected area boundary), whose path area exceeds the minimum specified in the site-specific Security Assessment are protected by a physical barrier and monitored by intrusion detection equipment or provided surveillance at a frequency sufficient to detect exploitation.

Table 2.2-1— Physical Security ITAAC
(Page 2 of 4)

Design Commitment	Inspections. Tests. Analyses	Acceptance Criteria
3. (a) Isolation zones exist in outdoor areas adjacent to the physical barrier at the perimeter of the protected area that allow 20 feet of observation and assessment on either side of the barrier, except for areas where permanent buildings do not allow a 20 foot observation distance. (b) Isolation zones are monitored with intrusion detection and assessment equipment capable of providing detection and assessment of activities within the isolation zone. (c) Areas where permanent buildings do not allow a 20 foot observation distance between the intrusion detection system and the protected area barrier (e.g., the building walls are immediately adjacent to, or are an integral part of the protected area barrier) are monitored by intrusion detection and assessment equipment that detects attempted or actual penetration of the protected area perimeter barrier before completed penetration of the barrier and assessment of detected activities.	3. (a) The outdoor areas adjacent to the physical barrier will be inspected. (b) The intrusion detection and assessment equipment for monitoring the isolation zones will be inspected. (c) Inspections of areas of the protected area perimeter barrier that do not have isolation zones will be inspected.	3. (a) The isolation zones exist in outdoor areas adjacent to the physical barrier at the perimeter of the protected area that allow 20 feet of observation and assessment of activities on either side of the barrier in the event of its penetration or attempted penetration, except for areas where permanent buildings do not allow a 20 foot observation distance. (b) Isolation zones are monitored by intrusion detection and assessment equipment capable of providing detection and assessment of activities within the isolation zone. (c) Areas where permanent buildings do not allow a 20 foot observation distance between the intrusion detection system and the protected area barrier (e.g., the building walls are immediately adjacent to, or an integral part of, the protected area barrier) are monitored with intrusion detection and assessment equipment that detects attempted or actual penetration of the protected area perimeter barrier before completed penetration of the barrier and assessment of detected activities.

Table 2.2-1— Physical Security ITAAC
(Page 3 of 4)

Design Commitment	Inspections. Tests. Analyses	Acceptance Criteria
4. (a) The perimeter intrusion detection system can detect penetration or attempted penetration of the protected area barrier before completed penetration of the barrier, and subsequent alarms annunciate concurrently in at least two continuously manned onsite alarm stations, (central and secondary alarm stations). (b) The perimeter assessment equipment is capable of providing video image recording with real-time and play-back capability that can provide assessment of detected activities before and after each alarm annunciation at the protected area perimeter barrier. (c) The intrusion detection and assessment equipment at the protected area perimeter remains operable from an uninterruptible power supply in the event of the loss of normal power.	4. (a) Tests, inspections, or a combination of tests and inspections of the intrusion detection system will be performed. (b) Tests, inspections or a combination of tests and inspections of the video assessment equipment will be performed. (c) Tests, inspections or a combination of tests and inspections of the uninterruptible power supply will be performed.	4. (a) The intrusion detection system can detect penetration or attempted penetration of the protected area perimeter barrier before completed penetration of the barrier, and subsequent alarms annunciate concurrently in at least two continuously manned onsite alarm stations, (central and secondary alarm stations). (b) The perimeter assessment equipment is capable of providing video image recording with real-time and play-back capability that can provide assessment of detected activities before and after each alarm annunciation at the protected area perimeter barrier. (c) Intrusion detection and assessment equipment at the protected area perimeter remains operable from an uninterruptible power supply in the event of the loss of normal power.
5. The external walls, doors, windows, ceilings, and floors in the last access control function for access to the protected area are bullet resistant, to at least Underwriter's Laboratories Ballistic Standard 752, "The Standard of Safety for Bullet- Resisting Equipment," Level 4.	5. Type test, analysis, or a combination of type test and analysis of the external walls, doors, windows, ceilings, and floors in the last access control function for access to the protected area will be performed.	5. A report exists and concludes that the walls, doors, windows, ceilings, and floors in the last access control function for access to the protected area are bullet resistant to at least Underwriter's Laboratories Ballistic Standard 752, "The Standard of Safety for Bullet- Resisting Equipment," Level 4.
6. (a) Access control points are established to control personnel and vehicle access into the protected area. (b) Access control points are established with equipment for the detection of firearms, explosives, incendiary devices or other items which could be used to commit radiological sabotage at the protected area personnel access points.	6. (a) Tests, inspections, or combination of tests and inspections of installed systems and equipment will be performed. (b) Tests, inspections, or combination of tests and inspections of installed systems and equipment will be performed.	6. (a) Access control points exist for the protected area and are configured to control access. (b) Access control points are established with equipment for the detection of firearms, explosives, incendiary devices or other items which could be used to commit radiological sabotage at the protected area personnel access points.
7. An access control system with a numbered photo identification badge system is installed for use by individuals who are authorized access to protected areas and vital areas without escort.	7. The access control system and the numbered photo identification badge system will be tested.	7. An access control system with a numbered photo identification badge system is installed for use by individuals who are authorized access to protected areas and vital areas without escort.

Table 2.2-1— Physical Security ITAAC
(Page 4 of 4)

Design Commitment	Inspections. Tests. Analyses	Acceptance Criteria
8. Emergency exits through the protected area perimeter are alarmed with intrusion detection devices and secured by locking devices that allow prompt egress during an emergency.	8. Tests, inspections or a combination of tests and inspections of emergency exits through the protected area perimeter will be performed.	8. Emergency exits through the protected area perimeter are alarmed with intrusion detection devices and secured by locking devices that allow prompt egress during an emergency.

2.3 Emergency Planning ITAAC

The Emergency Planning ITAAC are provided in Table 2.3-1.

Table 2.3-1— {Emergency Planning ITAAC}
(Page 1 of 11)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
1.0 Assignment of Responsibility (Organization Control)			
10 CFR 50.47(b)(1) - Primary responsibilities for emergency response by the nuclear facility licensee and by State and local organizations within the Emergency Planning Zones have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.	1.1 Each Federal, State, and local agency and other support organizations having an emergency response role within the Emergency Planning Zones shall identify the emergency measures to be provided and the mutually acceptable criteria for their implementation, and specify the arrangements for exchange of information.	1.1 An inspection will be performed to confirm that Letters of Agreement (LOA) for the CCNPP Unit 3 Emergency Plan were submitted to the NRC.	1.1 Letters of Agreement (LOA) for the CCNPP Unit 3 Emergency Plan, identifying the emergency measures to be provided and the mutually acceptable criteria for their implementation, and specify the arrangements for exchange of information, as defined in Appendix 3 of the CCNPP Unit 3 Emergency Plan, are submitted to the NRC no less than 180 days prior to fuel load.
2.0 Emergency Classification System			
10 CFR 50.47(b)(4) – A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.	2.1 A standard emergency classification and emergency action level (EAL) scheme exists, and identifies facility system and effluent parameters constituting the bases for the classification scheme. [D.1]	2.1 An inspection of the Control Room, Technical Support Center (TSC), and Emergency Operations Facility (EOF) will be performed to verify that they have displays for retrieving facility system and effluent parameters as specified in the Emergency Classification and EAL scheme and the displays are functional.	2.1.1 The parameters specified in the Calvert Cliffs Nuclear Power Plant Unit 3 U.S. EPR EAL Technical Basis Manual are retrievable and displayed in the Control Room, TSC and EOF. 2.1.2 The ranges of the displays in the Control Room, TSC and EOF encompass the values for the parameters specified in the Calvert Cliffs Nuclear Power Plant Unit 3 U.S. EPR EAL Technical Basis Manual.
3.0 Notification Methods and Procedures			

Table 2.3-1— {Emergency Planning ITAAC}
(Page 2 of 11)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
10 CFR 50.47(b)(5) – Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and follow-up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.	3.1 The means exist to notify responsible State and local organizations within 15 minutes after the licensee declares an emergency. [E.1]	3.1. A test of the dedicated offsite notification system will be performed to demonstrate the capabilities for providing initial notification to the offsite authorities after a simulated emergency classification.	3.1 The State of Maryland and the counties of St. Mary's, Calvert and Dorchester receive notification within 15 minutes after the declaration of a simulated emergency classification.
	3.2 The means exist to notify emergency response personnel. [E.2]	3.2 A test of the primary and back-up ERO notification systems will be performed.	3.2 CCNPP Unit 3 emergency response personnel receive the notification message, as validated by a survey (indicating the time of receipt) or a report to ensure full staffing in the prescribed time requirement.
	3.3 The means exist to notify and provide instructions to the populace within the plume exposure EPZ. [E.6]	3.3.1 A test will be performed of the CCNPP Alert and Notification System. The clarifying notes listed in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," will be used for this test.	3.3.1 Greater than 94% of ANS sirens are capable of performing their function.
		3.3.2 The pre-operational Federally evaluated exercise (ITAAC 8.0) will demonstrate the means to provide instructions to the populace within the plume exposure EPZ.	3.3.2 Successful completion of Federal Register 20-580, "FEMA Radiological Emergency Preparedness: Exercise Evaluation Methodology," Criterion 5.b.1 (OROs provide accurate emergency information and instruction to the public and the news media in a timely manner) during the pre-operational federally–evaluated exercise required in ITAAC 9.0.
4.0 Emergency Communications			

Table 2.3-1— {Emergency Planning ITAAC}
(Page 3 of 11)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
10 CFR 50.47(b)(6) – Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.	4.1 The means exist for communications among the Control Room, TSC, OSC, EOF, principal State and local emergency operations centers (EOCs), and radiological field assessment teams. [F.1.d]	4.1 A test is performed to confirm the capability to communicate between: 1) the Control Room, TSC, OSC and EOF; 2) the Control Room, TSC, and EOF with the principal EOCs; and 3) the TSC and EOF with the radiological field monitoring teams.	4.1 Communications (both primary and secondary methods/systems) are established: 1) Between the CCNPP Unit 3 Control Room, TSC, OSC and the EOF, 2) Between the CCNPP Unit 3 Control Room and TSC and the EOF with the a) State of Maryland warning point and EOC; b) St. Mary's County Warning Point and EOC; c) Calvert County Warning Point and EOC; and d) Dorchester County Warning Point and EOC, and 3) Between the CCNPP Unit 3 TSC and EOF with the CCNPP Unit 3 radiological field monitoring teams.
	4.2 The means exist for communications from the Control Room, TSC, and EOF to the NRC headquarters and regional office EOCs (including establishment of the Emergency Response Data System (ERDS) [or its successor system] between the onsite computer system and the NRC Operations Center.) [F.1.f]	4.2.1 A test is performed to confirm the capability to communicate using ENS from the Control Room, TSC and EOF to the NRC headquarters and regional office EOCs.	4.2.1 Communications are established from the CCNPP Unit 3 Control Room and TSC and EOF to the NRC headquarters and regional office EOCs utilizing the ENS.
		4.2.2 A test is performed to confirm the capability to communicate between the TSC and EOF with the NRC Operations Center utilizing HPN .	4.2.2 The CCNPP Unit 3 TSC and EOF demonstrate communications with the NRC Operations Center using HPN.
		4.2.3 A test is performed to establish the capability to transfer data to the NRC Operations Center via ERDS [or its successor system] through a link with the onsite computer systems and the NRC Operations Center.	4.2.3 The access port for ERDS [or its successor system] exists and successfully completes a transfer of data from CCNPP Unit 3 to the NRC Operations Center in accordance with 10 CFR 50 Appendix E.VI, Emergency Response Data System.
5.0 Public Education and Information			

Table 2.3-1— {Emergency Planning ITAAC}
(Page 4 of 11)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
10 CFR 50.47(b)(7) – Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established.	5.1 The licensee has provided space which may be used for a limited number of the news media at the EOF. [G.3.b] Note: For CCNPP Unit 3, the space for the news media is provided in the Joint Information Center (JIC), co-located with the EOF.	5.1 An inspection of the JIC will be conducted to verify adequate space is provided for a limited number of news media.	5.1 The JIC is co-located with the EOF, and has at least 4,546 square feet of space. A portion of this space can adequately accommodate a limited number of news media.
6.0 Emergency Facilities and Equipment			

Table 2.3-1— {Emergency Planning ITAAC}
(Page 5 of 11)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
10 CFR 50.47(b)(8) – Adequate emergency facilities and equipment to support the emergency response are provided and maintained.	6.1 The licensee has established a Technical Support Center (TSC) and onsite Operations Support Center (OSC). [H.1, H.9]	6.1 An inspection of the as-built TSC and OSC will be performed including a test of the capabilities.	6.1.1 The CCNPP Unit 3 TSC contains a minimum working space of 1875 square feet. 6.1.2 The CCNPP Unit 3 TSC is located on the same floor level as the Control Room. 6.1.3 The CCNPP Unit 3 TSC is located in the fully hardened Unit 3 Safeguards Building. It is also within the control room envelope (CRE) which maintains habitability during normal, off-normal and emergency conditions. 6.1.4 The CCNPP Unit 3 TSC communications capabilities are addressed by the ITAAC Acceptance Criterion 4.1.1. 6.1.5 The CCNPP Unit 3 TSC receives and displays the plant and environmental information for the parameters specified in the Calvert Cliffs Nuclear Power Plant Unit 3 U.S. EPR EAL Technical Basis Manual and ITAAC Acceptance Criterion 2.1.1. 6.1.6 The capability to initiate emergency measures and conduct emergency assessment was successfully demonstrated during the pre-operational federally–evaluated exercise required in ITAAC 8.0. 6.1.7 The CCNPP Unit 3 Operations Support Center (OSC) is located in the CCNPP Unit 3 Access Building within the protected area separate from the Unit 3 Control Room and Technical Support Center. 6.1.8 The Unit 3 U.S. EPR OSC communications capabilities are addressed by the Acceptance Criterion 4.1.1.

Table 2.3-1— {Emergency Planning ITAAC}
(Page 6 of 11)

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
	6.2 The licensee has established an EOF. [H. 2]	6.2.1 A test of the capabilities of the EOF will be performed. NOTE: The CCNPP EOF is a shared facility for CCNPP Units 1 & 2 and Unit 3and was previously inspected for Units 1 & 2. 6.2.2 An inspection of the implementation of the Human Factors Engineering Program EOF design requirements will be performed.	6.2.1.1 The CCNPP EOF has at least 4,912 square feet and is large enough for required systems, equipment, records and storage. 6.2.1.2 The CCNPP EOF communications capabilities are addressed by the Acceptance Criterion 4.1.1. 6.2.1.3 The CCNPP EOF's plant information system can retrieve and display the radiological, meteorological, plant system data for the parameters specified in the Calvert Cliffs Nuclear Power Plant Unit 3 U.S. EPR EAL Technical Basis Manual and ITAAC Acceptance Criterion 2.1.1. 6.2.1.4 The capability to perform offsite protective measures was successfully demonstrated during the pre-operational federally–evaluated exercise required in ITAAC 10.0.
			6.2.2 The Human Factors Engineering Program design requirements for the CCNPP Unit 3 are incorporated in the EOF.
7.0 Accident Assessment			

Table 2.3-1— {Emergency Planning ITAAC}
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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
10 CFR 50.47(b)(9) – Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.	7.1 The means exist to provide initial and continuing radiological assessment throughout the course of an accident. [I.2]	7.1 A test will be performed to demonstrate that the means exist to provide initial and continuing radiological assessment throughout the course of an accident.	7.1 A report exists that confirms an exercise or drill has been accomplished including use of selected monitoring parameters specified in the Calvert Cliffs Nuclear Power Plant Unit 3 U.S. EPR EAL Technical Basis Manual and ITAAC Acceptance Criterion 2.1.1 to assess simulated degraded plant conditions and initiate protective actions in accordance with the following criteria: Accident Assessment and Classification Initiating conditions identified, EALs parameters determined, and the emergency correctly classified throughout the drill. Radiological Assessment and Control Onsite radiological surveys performed and samples collected. Radiation exposure of emergency workers monitored and controlled. Field monitoring teams assembled and deployed. Field team data collected and disseminated. Dose projections developed. The decision whether to issue radioprotective drugs to CCNPP Unit 3 emergency workers made. Protective action recommendations developed and communicated to appropriate authorities.
	7.2 The means exist to determine the source term of releases of radioactive material within plant systems, and the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors. [I.3]	7.2 An analysis of emergency plan implementing procedures will be performed.	7.2 A methodology has been established to determine source term of releases of radioactive materials within plant systems and the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors.

Table 2.3-1— {Emergency Planning ITAAC}
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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
	7.3 The means exist to continuously assess the impact of the release of radioactive materials to the environment, accounting for the relationship between effluent monitor readings, and onsite and offsite exposures and contamination for various meteorological conditions. [I.4]	7.3 An analysis of emergency plan implementing procedures will be performed.	7.3.1 A methodology has been established accounting for the relationship between effluent monitor readings and onsite and offsite exposures and contamination for various radiological conditions. 7.3.2 The continuous assessment of the impact of the release of radioactive materials to the environment is addressed in ITAAC Acceptance Criterion 6.1.
	7.4 The means exist to acquire and evaluate meteorological information. [I.5]	7.4 An inspection will be performed to verify the meteorological data/information is available to emergency response personnel in the Control Room, TSC and EOF.	7.4 The CCNPP Unit 3 Control Room, TSC and EOF can acquire wind speed data (at 10m and 60m); wind direction data (at 10m and 60m); and ambient air temperature data (at 10m and 60m).
	7.5 The means exist to make rapid assessments of actual or potential magnitude and locations of radiological hazards through liquid or gaseous release pathways, including activation, notification means, field team composition, transportation, communication, monitoring equipment, and estimated deployment times. [I.8]	7.5 An analysis of emergency plan implementing procedures will be performed.	7.5.1 A methodology has been established to provide rapid assessment of the actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways. 7.5.2 The activation, notification means, field team composition, transportation, communication, monitoring equipment, and estimated deployment times are addressed in ITAAC Acceptance Criterion 7.1.
	7.6 The capability exists to detect and measure radioiodine concentrations in air in the plume exposure EPZ, as low as 10^{-7} µCi/cc (microcuries per cubic centimeter) under field conditions. [I.9]	7.6 An inspection will be performed of the capabilities to detect and measure radioiodine concentrations in air in the plume exposure EPZ, as low as 1E-07 µCi/cc (microcuries per cubic centimeter) under field conditions.	7.6 The equipment and procedures are adequate to detect and measure radioiodine concentrations in air in the plume exposure EPZ, as low as 1E-07 µCi/cc (microcuries per cubic centimeter).

Table 2.3-1— {Emergency Planning ITAAC}
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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
	7.7 The means exist to estimate integrated dose from the projected and actual dose rates, and for comparing these estimates with the EPA protective action guides (PAGs). [I.10]	7.7 An analysis of emergency plan implementing procedures will be performed to verify that a methodology is provided to establish means for relating contamination levels and airborne radioactivity levels to dose rates and gross radioactivity measurements for the isotopes specified in Table 2.2 of NUREG-1228.	7.7 The means for relating contamination levels and airborne radioactivity levels to dose rates and gross radioactivity measurements for the isotopes specified in NUREG-1228 has been established.
8.0 Protective Response			
10 CFR 50.47(b)(10) – A range of protective actions has been developed for the plume exposure EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure EPZ appropriate to the locale have been developed.	8.1 The means exist to warn and advise onsite individuals of an emergency, including those in areas controlled by the operator, including:[J.1] employees not having emergency assignments; visitors; contractor and construction personnel; and other persons who may be in the public access areas, on or passing through the site, or within the owner controlled area.	8.1 A test will be performed to confirm the capability to warn and advise onsite individuals of an emergency, including those in areas controlled by the operator.	8.1.1 During a drill or exercise, notification and instructions are provided to onsite workers and visitors, within the Protected Area, over the plant public announcement system. 8.1.2 During a drill or exercise, warnings are provided to individuals outside the Protected Area, but within the Owner Controlled Area using the implementing procedures for the CCNPP Unit 3 Emergency Plan submitted in accordance with ITAAC 10.0.
9.0 Medical and Public Health Support			
10 CFR 50.47 (b)(12) - Arrangements are made for medical services for contaminated injured individuals.	9.1 Each organization shall arrange for local and backup hospital and medical services having tha capability for evaluation of radiation exposure and uptake, including assurance that person providing these services are adequately prepared to handle contaminated individuals.	9.1 An inspection will be performed to confirm that Letters of Agreement (LOA) for the CCNPP Unit 3 Emergency Plan were submitted to the NRC.	9.1 Letters of Agreement (LOA) for the CCNPP Unit 3 Emergency Plan for hospitals and medical services having the capability for evaluation of radiation exposure and uptake, as established in Appendix 3 of the Emergency Plan, are submitted to the NRC no less than 180 days prior to fuel load.

Table 2.3-1— {Emergency Planning ITAAC}
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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
	9.2 Each organization shall arrange for transporting victims of radiological accidents to medical support facilities.	9.2 An inspection will be performed to confirm that Letters of Agreement (LOA) for the CCNPP Unit 3 Emergency Plan were submitted to the NRC.	9.2 Letters of Agreement (LOA) for the CCNPP Unit 3 Emergency Plan for transporting vicitms of radiological accidents, including contaminated injured individuals, from the site to offsite medical support facilities, as established in Appendix 3 of the Emergency Plan, are submitted to the NRC no less than 180 days prior to fuel load.
10.0 Exercises and Drills			
10 CFR 50.47(b)(14) – Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.	10.1 Licensee conducts a full participation exercise to evaluate major portions of emergency response capabilities, which includes participation by each State and local agency within the plume exposure EPZ, and each State within the ingestion control EPZ. [N.1]	10.1 A full participation exercise (test) will be conducted within the specified time periods of Appendix E to 10 CFR Part 50. 10.2 An off-hours/unannounced drill will be conducted prior to full power operation to test mobilization of the onsite ERO.	10.1.1 See Note 10.1.2 The exercise is completed within the specified time periods of Appendix E to 10 CFR Part 50, offsite exercise objectives are met, and there are no uncorrected offsite exercise deficiencies in accordance with Federal Register 20-580, "FEMA Radiological Emergency Preparedness: Exercise Evaluation Methodology," and agreed to Extent of Play. 10.2 Onsite emergency response personnel are mobilized in sufficient numbers to fully staff and activate the TSC, OSC, EOF and JIC and command and control turnover from the Shift Supervisor.
11.0 Implementing Procedures			
10 CFR Part 50, App. E.V – No less than 180 days prior to the scheduled issuance of an operating license for a nuclear power reactor or a license to possess nuclear material, the applicant's detailed implementing procedures for its emergency plan shall be submitted to the Commission.	11.1 The licensee has submitted detailed implementing procedures for its emergency plan no less than 180 days prior to fuel load.	11.1 An inspection will be performed to confirm that the detailed implementing procedures for the CCNPP Unit 3 Emergency Plan were submitted to the NRC.	11.1 Each of the detailed implementing procedures for the CCNPP Unit 3 Emergency Plan, as defined in Appendix 2 of the Emergency Plan, are submitted to the NRC no less than 180 days prior to fuel load.
12.0 Responsibility for the Planning Effort			

Table 2.3-1— {Emergency Planning ITAAC}
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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
10 CFR 50.47 (b)(16) - Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.	12.1 The emergency response plans shall be forwarded to organizations and appropriate individuals with responsibility for implementation of the plans.	12.1 An inspection will be performed to confirm that the controlled distribution list of CCNPP Unit 3 emergency planning documents have been forwarded to all organizations and appropriate individuals with responsibility for implementation of the plans.	Documents have been distributed in accordance with the controlled distribution list.

Note: The exercise is completed within the specified time periods of Appendix E to 10 CFR Part 50. At a minimum, the onsite exercise objectives listed below are met and there are no uncorrected onsite exercise deficiencies.

A. Accident Assessment and Classification

1. Demonstrate the ability to identify initiating conditions, determine emergency action level (EAL) parameters, and correctly classify the emergency throughout the exercise.

   Standard Criteria:

   a. Determine the correct highest emergency classification level based on events which were in progress, considering past events and their impact on the current conditions, within 15 minutes from the time the initiating condition(s) or EAL is identified.

B. Notifications

1. Demonstrate the ability to alert, notify and mobilize site emergency response personnel.

   Standard Criteria:

   a. Correctly complete the designated checklist and activate the ERO notification system using the appropriate message scenario.

   b. Confirm the ERO is notified and minimum staffing personnel respond to their assigned facilities within 60 minutes of an event declaration requiring facility activation.

2. Demonstrate the ability to notify responsible State, local government agencies within 15 minutes and the NRC within 60 minutes after declaring an emergency.

   Standard Criteria:

   a. Transmit information accurately using the designated checklist, in accordance with approved emergency implementing procedures, within 15 minutes of event classification.

   b. Transmit information using the designated checklist as soon as possible following State and local notification and within 60 minutes of event classification for an initial notification of the NRC.

3. Demonstrate the ability to warn or advise onsite individuals of emergency conditions.

   Standard Criteria:

   a. Initiate notification of onsite individuals (via plant page, telephone, etc.), using the designated checklist, within 15 minutes of event declaration.

4. Demonstrate the capability of the Prompt Notification System (PNS), for the public, to operate properly when required.

   Standard Criteria:

a. Greater than 94% of ANS sirens are capable of performing their function as indicated by the feedback system. The clarifying notes listed in NEI 99-02, Regulatory Assessment Performance Indicator Guideline, will be used for this test.

C. Emergency Response

1. Demonstrate the capability to direct and control emergency operations.

   Standard Criteria:

   a. Facility command and control is demonstrated by the Shift Supervisor in the Control Room (simulator) upon event declaration, and by the Emergency Plant Manager in the Technical Support Center (TSC) / Emergency Director in the Emergency Operations Facility (EOF) within 60 minutes of ERO notification.

2. Demonstrate the ability to transfer overall command and control from the Shift Supervisor in the Control Room (simulator) to the Emergency Plant Manager in the TSC and/or the Emergency Director in the EOF.

   Standard Criteria:

   a. Evaluation of briefings that were conducted prior to turnover includes current plant conditions, response efforts and priorities, and the formal relief of delegable and non-delegable responsibilities.

3. Demonstrate the ability to prepare for around the clock staffing requirements.

   Standard Criteria:

   a. Complete 24-hour staff assignments.

4. Demonstrate the ability to perform assembly and accountability for all onsite individuals within 30 minutes of an emergency requiring a Protected Area assembly and accountability.

   Standard Criteria:

   a. All Protected Area personnel are assembled in their designated assembly area and accountability is completed within 30 minutes of an emergency requiring Protected Area assembly and accountability.

D. Emergency Response Facilities

1. Demonstrate activation of the Operational Support Center (OSC), Technical Support Center (TSC) and Emergency Operations Facility (EOF).

   Standard Criteria:

   a. Minimum staffing of the TSC, EOF and OSC is achieved within 60 minutes of the initial ERO notification.

2. Demonstrate the adequacy of equipment, security provisions, and habitability precautions for the TSC, OSC, EOF, and Joint Information Center (JIC), as appropriate.

   Standard Criteria:

   a. The adequacy of the emergency equipment in the emergency response facilities, including availability and consistency with emergency implementing procedures, supported the accomplishment of all of the evaluated performance objectives.

b. The Security Coordinator implements and performs all appropriate steps from the emergency implementing procedures for the ingress, egress and control of onsite and offsite personnel responding to the site during the scenario.

c. The Radiation Protection Manager (TSC) and staff correctly implements and performs all appropriate steps from the designated checklist when a simulated onsite/offsite release has occurred during the scenario.

3. Demonstrate the adequacy of communications for all emergency support resources.

Standard Criteria:

a. Emergency response communications listed in emergency implementing procedures are available and operational.

b. Communications systems are adequate to support CR, TSC, OSC, EOF, and JIC Activation Checklists.

c. Emergency response facility personnel are able to operate all specified communication systems.

d. Clear primary communications links are established and maintained for the duration of the exercise.

E. Radiological Assessment and Control

1. Demonstrate the ability to obtain onsite radiological surveys and samples.

Standard Criteria:

a. RP personnel demonstrate the ability to obtain appropriate instruments (range and type) and take surveys for scenario conditions that allow EPA PAGs to be exceeded.

b. Airborne samples are properly taken, reported and assessed and utilized when the conditions indicate the need for the information.

2. Demonstrate the ability to continuously monitor and control radiation exposure to emergency workers.

Standard Criteria:

a. Emergency workers are issued self-reading dosimeters when radiation levels require, and exposures are controlled to 10 CFR Part 20 limits until the ED authorizes the use of emergency EPA limits.

b. Exposure records are available, either from the ALARA computer or a hard copy dose report, and are updated and reviewed throughout the scenario.

3. Demonstrate the ability to assemble and deploy monitoring teams from the decision to do so.

Standard Criteria:

a. When conditions require offsite surveys, Monitoring Teams are available, properly equipped, briefed and are dispatched in a timely manner.

4. Demonstrate the ability to satisfactorily collect and disseminate field team data.

Standard Criteria:

a. Offsite radiological environmental data collected is provided as dose rate and counts per minute (cpm) from the plume, both open and closed window, and air sample (gross and net cpm) for particulate and iodine, if applicable,

b. Offsite radiological environmental data is promptly and accurately communicated from the monitoring team to the Environmental Assessment Director.

5. Demonstrate the ability to develop dose projections.

Standard Criteria:

a. The Radiological Assessment Specialist or Radiological Assessment Coordinator performs timely and accurately dose projections in accordance with emergency implementing procedures and reports them to the Radiological Assessment Director.

6. Demonstrate the ability to make the decision whether to issue radioprotective drugs (KI) to emergency workers.

Standard Criteria:

a. Personnel are briefed and issued KI when scenario conditions exceed 25 rem committed dose equivalent (CDE) or the conscious decision is made to issue KI as a precautionary measure.

7. Demonstrate the ability to develop appropriate protective action recommendations (PARs) and notify appropriate authorities within 15 minutes of development.

Standard Criteria:

a. Total effective dose equivalent (TEDE) and committed dose equivalent (CDE) to the thyroid dose projections from the dose assessment computer code are compared to the PAGs.

b. PARs are accurately developed within 15 minutes of the time information of the condition warranting a PAR was available to the ERO.

c. PAR's are accurately transmitted within 15 minutes of PAR development.

F. Public Information

1. Demonstrate the capability to develop and disseminate clear, accurate, and timely information to the news media in accordance with emergency implementing procedures.

Standard Criteria:

a. Information provided to the media/public is prepared at a level that the public can understand. Visuals and handouts are provided as needed to clarify the information.

b. Information is coordinated with Federal, State and local agencies to maintain factual consistency.

2. Demonstrate the capability to establish and effectively operate rumor control in a coordinated fashion.

Standard Criteria:

a. Calls are answered in a timely manner with the correct information, in accordance with emergency implementation procedures.

b. Calls are returned or forwarded, as appropriate, to demonstrate responsiveness.

c. Rumors are identified and addressed.

G. Evaluation

1. Demonstrate the ability to conduct a post-exercise critique, to determine areas requiring improvement and corrective action.

Standard Criteria:

a. An exercise time line is developed, followed by an evaluation of the objectives against the expectations of the timeline.

b. Significant problems in achieving the objectives are discussed to ensure understanding of why objectives were not fully achieved.

c. Areas requiring improvement are entered in the stations corrective action program.

2.4 Site-Specific ITAAC

The Site-Specific ITAAC are provided in {Table 2.4-1 through Table 2.4-35}. Site-specific systems were evaluated against selection criteria in {CCNPP Unit 3} FSAR Section 14.3.

Table 2.4-1— {Structural Fill and Backfill Under Seismic Category I and Seismic Category II-SSE Structures Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	Structural fill material under Seismic Category I and Category II-SSE structures is installed to meet a minimum of 95 percent of the Modified Proctor density.	Testing will be performed during the placement of the structural fill material.	A report exists that concludes the installed structural fill material under Seismic Category I and II-SSE structures meets a minimum of 95 percent Modified Proctor density.
2	Shear wave velocity of structural fill material beneath the Emergency Power Generation Buildings (EPGB) is greater than or equal to 630 ft/sec at the bottom of the foundation and below.	Field measurements and analyses of shear wave velocity in structural fill will be performed when structural fill placement is at the elevation of the bottom of the foundation and at finish grade.	An engineering report exists that concludes that the shear wave velocity within the structural fill material placed under the EPGB at its foundation depth and below is greater than or equal to 630 ft/sec.
3	Shear wave velocity of structural fill material beneath the Essential Service Water Buildings (ESWB) is greater than or equal to 720 ft/sec at the bottom of the foundation and below.	Field measurements and analyses of shear wave velocity in structural fill will be performed when structural fill placement is at the elevation of the bottom of the foundation and at finish grade.	An engineering report exists that concludes that the shear wave velocity within the structural fill material placed under the ESWB at its foundation depth and below is greater than or equal to 720 ft/sec.
4	Shear wave velocity of structural fill material beneath the Fire Protection Buildings (FPB) and associated Fire Protection Tanks (FPT) is greater than or equal to 630 ft/sec at the bottom of the foundation and below.	Field measurements and analyses of shear wave velocity in structural fill will be performed when structural fill placement is at the elevation of the bottom of the foundation and at finish grade.	An engineering report exists that concludes that the shear wave velocity within the structural fill material placed under the FPB & FPT at their foundation depths and below is greater than or equal to 630 ft/sec.

Table 2.4-2— {Nuclear Island Structures Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	For the Nuclear Island structures' below grade concrete foundation and walls, a low water to cement ratio concrete will be utilized.	Tests, inspections, or a combination of tests and inspections will be conducted to ensure the concrete meets the low water to cement ratio limit.	A report exists that concludes the concrete utilized to construct the as-built Nuclear Island Structures' below grade concrete foundation and walls have a maximum water to cementitious materials ratio of 0.45.

Table 2.4-3— {Emergency Power Generating Buildings Inspections, Tests, Analyses, and Acceptance Criteria}

	ee	Inspection, Test, or Analysis	Acceptance Criteria
1	For the Emergency Power Generating Buildings' below grade concrete foundations and walls, a low water to cement ratio concrete will be utilized.	Tests, inspections, or a combination of tests and inspections will be conducted to ensure the concrete meets the low water to cement ratio limit.	A report exists that concludes the concrete utilized to construct the as-built Emergency Power Generating Buildings' below grade concrete foundation and walls have a maximum water to cementitious materials ratio of 0.45.

Table 2.4-4— {Nuclear Auxiliary Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	For the Nuclear Auxiliary Buildings' below grade concrete foundation and walls, a low water to cement ratio concrete will be utilized.	Tests, inspections, or a combination of tests and inspections will be conducted to ensure the concrete meets the low water to cement ratio limit.	A report exists that concludes the concrete utilized to construct the as-built Nuclear Auxiliary Buildings' below grade concrete foundation and walls have a maximum water to cementitious materials ratio of 0.45.

Table 2.4-5— {Radioactive Waste Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	For the Radioactive Waste Buildings' below grade concrete foundation and walls, a low water to cement ratio concrete will be utilized.	Tests, inspections, or a combination of tests and inspections will be conducted to ensure the concrete meets the low water to cement ratio limit.	A report exists that concludes the concrete utilized to construct the as-built Radioactive Waste Buildings' below grade concrete foundation and walls have a maximum water to cementitious materials ratio of 0.45.

Table 2.4-6— {Essential Service Water Buildings Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	For the Essential Service Water Buildings' below grade concrete foundation and walls, a low water to cement ratio concrete mixture will be utilized.	Tests, inspections, or a combination of tests and inspections will be conducted to ensure the concrete meets the low water to cement ratio limit.	A report exists that concludes the concrete utilized to construct the as-built Essential Service Water Buildings' below grade concrete foundation and walls have a maximum water to cementitious materials ratio of 0.40.

Table 2.4-7— {Ultimate Heat Sink Makeup Water Intake Structure Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 1 of 4)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The UHS Makeup Water Intake Structure, including the interior structures, is Seismic Category I and is designed to withstand design basis loads and load combinations without a loss of structural integrity.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the UHS Makeup Water Intake Structure, including the interior structures, using analytical assumptions, or under conditions which bound the Seismic Category I design requirements and to determine that the UHS Makeup Water Intake Structure, including the interior structures, is designed to withstand design basis loads and load combinations without loss of structural integrity. b. An inspection will be performed of the UHS Makeup Water Intake Structure, including the interior structures, to verify that the construction is as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the UHS Makeup Water Intake Structure, including its interior structures, can withstand design basis seismic loads without loss of safety function and is capable of withstanding the structural design basis loads in accordance with the Structural Acceptance Criteria. b. Inspection reports exist and conclude that the as-built UHS Makeup Water Intake Structure, including its interior structures, is constructed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).
2	For the UHS Makeup Water Intake Structure's below grade concrete foundation and walls, a low water to cement ratio concrete mixture will be utilized.	Tests, inspections, or a combination of tests and inspections will be conducted to ensure the concrete meets the low water to cement ratio limit.	A report exists that concludes the concrete utilized to construct the as-built UHS Makeup Water Intake Structure's below grade concrete foundation and walls have a maximum water to cementitious materials ratio of 0.40.

Table 2.4-7— {Ultimate Heat Sink Makeup Water Intake Structure Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
3	The basic configuration of the UHS Makeup Water Intake Structure separates each mechanical and electrical division of the UHS Makeup Water Supply System by an internal hazards separation barrier so that the impact of internal hazards, including fire and flood, is contained within the mechanical and electrical division of hazard origination.	a. An inspection of the as-built basic configuration of the mechanical and electrical division structures as determined in the part (h) analysis will be performed. During construction, deviations from the approved design will be analyzed for design basis internal hazards and deviations from the approved design have been reconciled. b. A fire protection analysis will be performed. c. Inspection of the as-built conditions of barriers, doors, dampers, and penetrations existing within the internal hazards protective barriers separating the four mechanical and electrical divisions, versus construction drawings of barriers, doors, dampers, and penetrations as determined in the part (b) analysis, will be performed. d. Testing of dampers that separate the four mechanical and electrical divisions will be performed. e. A post-fire safe shutdown analysis will be performed. f. An internal flooding analysis for the mechanical and electrical divisions will be performed.	a. A report exists and concludes that the as-built basic configuration of the mechanical and electrical divisions structures provides separation and deviations from the approved design have been reconciled. b. A report exists and concludes that completion of fire protection analysis indicates barriers, doors, dampers, and penetrations providing separation have a minimum 3-hour fire rating and mitigate the propagation of smoke to the extent that safe shutdown is not adversely affected. c. A report exists and concludes that the as-built configuration of fire barriers, doors, dampers and penetrations that separate the four mechanical and electrical divisions agrees with the construction drawings. d. A report exists and concludes that the dampers that separate the four mechanical and electrical divisions close on receipt of signal. e. A report exists and concludes that completion of the post-fire safe shutdown analysis indicates that at least one success path comprised of the minimum set of SSC is available for safe shutdown. f. A report exists and concludes that the completion of the internal flooding analysis for the mechanical and electrical divisions indicates that the impact of internal flooding is contained within the mechanical division of origin.

Table 2.4-7— {Ultimate Heat Sink Makeup Water Intake Structure Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
		g. A walkdown of the mechanical and electrical divisions features identified in the internal flooding analysis in part (f) that maintain the impact of the internal flooding to the mechanical and electrical division of origin will be performed and deviations from the approved design have been reconciled. h. An analysis to identify the internal hazards separation barrier limits will be performed.	g. A report exists and concludes that the mechanical and electrical division flood protection features that maintain the impact of internal flooding to the mechanical and electrical division of origin are installed and agree with the construction drawings and deviations from the approved design have been reconciled. h. A report exists and concludes that the completion of the UHS Makeup Water Intake Structure internal hazards separation barrier analysis indicates that the impact of internal hazards, including fire and flood, is contained within the mechanical and electrical division of hazard origination.
4	The pump house area of the UHS Makeup Water Intake Structure exterior structural walls or floors having exterior penetrations are protected against external flooding by watertight seals.	An inspection of the pump house area of the UHS Makeup Water Intake Structure exterior structural wall and floor penetrations will be performed.	A report exists and concludes that watertight seals exist for exterior penetrations of the pump house area of the UHS Makeup Water Intake Structure structural walls and floors.

Table 2.4-7— {Ultimate Heat Sink Makeup Water Intake Structure Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
5	The water tight measures (i.e., water stops, fittings, submarine doors, and hatches) for the UHS Makeup Water Intake Structure are designed to withstand the structural design basis loads and load combinations.	a. Analyses will be performed to determine that the water tight measures (i.e., water stops, fittings, submarine doors, and hatches) for the UHS Makeup Water Intake Structure are designed to withstand the structural design basis loads and load combinations. b. An inspection will be conducted to verify the as built water tight measures (i.e., water stops, fittings, submarine doors, and hatches) for the UHS Makeup Water Intake Structure are installed as specified on the construction drawings and deviations from the approved design have been reconciled.	a. A report exists that concludes the as-built water tight measures (i.e., water stops, fittings, submarine doors, and hatches) for the UHS Makeup Water Intake Structure can withstand the structural design basis loads and meet the Structural Acceptance Criteria. b. A report exists that concludes the as-built water tight measures (i.e., water stops, fittings, submarine doors, and hatches) for the UHS Makeup Water Intake Structure agrees with construction drawings and deviations from the approved design are reconciled.

Table 2.4-8— {Buried Conduit and Duct Banks, and Pipe and Pipe Ducts Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 1 of 4)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	Seismic Category I buried electrical duct banks traverse from (See FSAR Figures Figures 3.8-1 and 3.8-2): a. From each Essential Service Water Building to the UHS Makeup Water Intake Structure. b. From the Safeguards Buildings to the four Essential Service Water Buildings and from the Safeguards Building to both Emergency Power Generating Buildings.	Inspections of the as-built buried Seismic Category I electrical conduit and duct banks will be conducted.	A report exists and concludes that the as-built Seismic Category I buried electrical conduit and duct banks traverse: a. From each Essential Service Water Building to the UHS Makeup Water Intake Structure. b. From the Safeguards Buildings to the four Essential Service Water Buildings and from the Safeguards Building to both Emergency Power Generation Buildings.
2	Seismic Category I buried pipe and pipe ducts consists of: 1. Large diameter Essential Service Water (ESW) supply and return pipes between the Safeguards Buildings and the ESW Buildings (See FSAR Figure 3.8-4). 2. Large diameter ESW supply and return pipes between the Emergency Power Generating Buildings which tie in directly to the aforementioned pipes (See FSAR Figure 3.8-4). 3. UHS Makeup Water pipes between the UHS Makeup Water Intake Structure and ESWBs (See FSAR Figure 3.8-3). 4. Seismic Category I buried Intake pipes run from the CCNPP Unit 3 Inlet Area to the Unit 3 Forebay (See FSAR Figure 3.8-51).	Inspections of the as-built buried Seismic Category I pipe and pipe ducts will be conducted.	A report exists and concludes that the as-built Seismic Category I buried pipe and pipe ducts are located as designed.

Table 2.4-8— {Buried Conduit and Duct Banks, and Pipe and Pipe Ducts Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
3	Concrete components of buried Seismic Category I electrical conduit duct banks and pipe and pipe ducts are designed in accordance with the design criteria referenced in FSAR Section 3.8.4.2 and ACI 349-2001, including the exceptions specified in Regulatory Guide 1.142.	a. Analysis of the asdesigned concrete components of buried Seismic Category I electrical conduit duct banks and pipe and pipe ducts will be performed. b. An inspection will be performed to verify the concrete components of buried Seismic Category I electrical conduit duct banks and pipe and pipe ducts are installed as specified on the construction drawings and deviations from the approved design have been reconciled.	a. A report exists and concludes that the asdesigned concrete components of buried Seismic Category I electrical conduit duct banks and pipe and pipe ducts conform to ACI 349- 2001, including the exceptions specified in Regulatory Guide 1.142. b. A report exists that concludes the as-built concrete components of buried Seismic Category I electrical conduit duct banks and pipe and pipe ducts agree with construction drawings and deviations from the approved design are reconciled.
4	Steel components of buried Seismic Category I electrical conduit duct banks and pipe and pipe ducts are designed in accordance with the design criteria referenced in FSAR Section 3.8.4.2 and ANSI/AISC N690- 1994 (R2004), including Supplement 2.	a. Analysis of the asdesigned steel components of buried Seismic Category I electrical conduit duct banks and pipe and pipe ducts will be performed. b. An inspection will be performed to verify the steel components of buried Seismic Category I electrical conduit duct banks and pipe and pipe ducts as determined in the part (a) analysis are installed as specified on the construction drawings and deviations from the approved design have been reconciled.	a. A report exists and concludes that the asdesigned steel components of buried Seismic Category I electrical conduit duct banks and pipe and pipe ducts conform to ANSI/AISC N690-1994 (R2004), including Supplement 2. b. A report exists that concludes the as-built steel components of buried Seismic Category I electrical conduit duct banks and pipe and pipe ducts analysis agree with construction drawings and deviations from the approved design are reconciled.

Table 2.4-8— {Buried Conduit and Duct Banks, and Pipe and Pipe Ducts Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
5	The buried Seismic Category I electrical duct banks and pipes can withstand design basis loads (per FSAR Sections 3.8.4.1.8 and 3.8.4.4.5) without loss of safety function.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the buried Seismic Category I electrical duct banks and pipes using analytical assumptions, or under conditions which bound the Seismic Category I design requirements. b. Inspections will be performed of the electrical duct banks and pipes to verify that the construction is as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the buried Seismic Category I electrical duct banks and pipes can withstand the design basis loads without loss of safety function. b. Inspection reports exist and conclude that the as-built Seismic Category I electrical duct banks and pipes, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).
6	For the concrete components of buried Seismic Category I electrical conduit duct banks and pipe and pipe ducts, a low water to cement ratio concrete mixture will be utilized.	Tests, inspections, or a combination of tests and inspections will be conducted to ensure the concrete meets the low water to cement ratio limit.	The concrete utilized to construct the concrete components of as-built buried Seismic Category I electrical conduit duct banks and pipe and pipe ducts met the following: a. A maximum water to cementitious materials ratio of 0.40. b. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.
7	The buried Seismic Category I conduit and duct banks, and pipe and pipe ducts provide separation between divisions of systems.	a. Analyses will be performed on the buried Seismic Category I electrical conduit and duct banks, and pipe and pipe ducts.	a. A report exists that concludes buried Seismic Category I electrical conduit and duct banks, and pipe and pipe ducts are designed to provide separation between divisions of systems.

Table 2.4-8— {Buried Conduit and Duct Banks, and Pipe and Pipe Ducts Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
7		b. Inspections will be performed to verify that the as-built buried conduit and duct banks, and pipe and pipe ducts are constructed and installed as specified on the construction drawings and deviations will be reconciled to analyses.	b. Inspection reports exist and conclude that the as-built buried conduit and duct banks, and pipe and pipe ducts are constructed and installed as specified on the construction drawings and deviations have been reconciled to analyses.

Table 2.4-9— {Fire Protection Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Fire Protection Building will house the following equipment: a. Diesel Driven Fire Pumps, Drivers, and associated piping, valves, equipment, instruments and controls. b. Diesel Fuel Oil Supply Day Tank and associated piping, valves, equipment, instruments, and controls.	An inspection of the as-built structure will be conducted.	The as-built Fire Protection Building houses the: a. Diesel Driven Fire Pumps, Drivers and associated piping, valves, equipment, instruments and controls. b. Diesel Fuel Oil Supply Day Tank and associated piping, valves, equipment, instruments, and controls.
2	The Fire Protection Building is classified as Seismic Category II-SSE that can withstand the applicable structural design basis loads without a loss of structural integrity and remain functional during and after an SSE.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the Fire Protection Building, using analytical assumptions, or under conditions which bound the Seismic Category II-SSE design requirements and to determine that it can withstand the applicable structural design basis loads without losing its structural integrity and will remain functional during and after an SSE. b. An inspection will be performed of the Fire Protection Building, to verify that the construction is as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Fire Protection Building can withstand the applicable structural design basis loads without loss of structural integrity and will remain functional during and after an SSE. b. Inspection reports exist and conclude that the as-built Fire Protection Building is constructed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).
3	For the Fire Protection Building's concrete foundation and walls exposed to ground water, a low water to cement ratio concrete mixture will be utilized.	Tests, inspections, or a combination of tests and inspections will be conducted to ensure the concrete meets the low water to cement ratio limit.	A report exists that concludes the concrete utilized to construct the as-built Fire Protection Building's below grade concrete foundation and walls have a maximum water to cementitious materials ratio of 0.45.

Table 2.4-10— {Turbine Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	a. The Turbine Building is located in a radial position with respect to the Reactor Building, but is independent from the Nuclear Island. b. The Turbine Building is oriented to minimize the effects of any potential turbine generated missiles.	a. An inspection of the as-built structure will be conducted. b. An analysis of the as-built structure's location and orientation will be conducted.	a. The as-built Turbine Building location is in a radial position with respect to the as-built Reactor Building, and is independent from the as-built Nuclear Island. b. The as-built Turbine Building's location and orientation are consistent with the assumptions utilized in the analysis of the potential turbine missiles.
2	The Turbine Building does not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	a. An analysis of the Turbine Building structure design will be performed to determine that it will not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event. b. An inspection will be performed to verify the as-built Turbine Building is installed as specified on the construction drawings and deviations from the approved design have been reconciled.	a. A report exists and concludes that under seismic loads the asdesigned Turbine Building will not impact the ability of any safety-related structure, system or component to perform its safety function. The report also concludes that the design of the Turbine Building is to the same requirements as a Seismic Category I structure. b. A report exists that concludes the as-built Turbine Building agrees with construction drawings and deviations from the approved design are reconciled.
3	The Turbine Building houses the components of the steam condensate main feedwater cycle, including the turbine-generator.	An inspection of the as-built structure will be conducted.	The as-built Turbine Building houses the components of the steam condensate main feedwater cycle, including the turbine-generator, in accordance with the design.
4	For the Turbine Building's below grade concrete foundation and walls exposed to ground water, a low water to cement ratio concrete mixture will be utilized.	Tests, inspections, or a combination of tests and inspections will be conducted to ensure the concrete meets the low water to cement ratio limit.	The concrete utilized to construct the as-built Turbine Building below grade concrete foundation and walls met the following: a. A maximum water to cementitious materials ratio of 0.45. b. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.

Table 2.4-11— {Switchgear Building Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 1 of 3)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Switchgear Building is located adjacent to and contiguous with the Turbine Building.	An inspection of the as-built structure will be conducted.	The as-built Switchgear Building is located adjacent to and contiguous with the as-built Turbine Building.
2	The Switchgear Building does not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	a. An analysis of the Switchgear Building structure design will be performed to determine that it will not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event. b. An inspection will be performed to verify the as-built Switchgear Building is installed as specified on the construction drawings and deviations from the approved design have been reconciled.	a. A report exists and concludes that under seismic loads the asdesigned Switchgear Building will not impact the ability of any safety-related structure, system or component to perform its safety function. The report also concludes that the design of the Switchgear Building is to the same requirements as a Seismic Category I structure. b. A report exists that concludes the as-built Switchgear Building agrees with construction drawings and deviations from the approved design are reconciled.
3	The Switchgear Building contains the power supplies and the instrumentation and controls for the Turbine Island, the balance of plant, and the SBO diesel generators.	An inspection of the as-built structure will be conducted.	The as-built Switchgear Building houses the power supplies and the instrumentation and controls for the Turbine Island, the balance of plant, and the SBO diesel generators, in accordance with the design.

Table 2.4-11— {Switchgear Building Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 2 of 3)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
4	The basic configuration of the Switchgear Building and Turbine Building separates each SBO Diesel Generator and its supporting equipment from the other equipment in the Switchgear Building and Turbine Building by an internal hazards separation barrier so that the impact of internal hazards, including fire and flood, is contained within the mechanical division of hazard origination.	a. An inspection of the as-built basic configuration of each SBO Diesel Generator and its supporting equipment as determined in the part (h) analysis will be performed. During construction, deviations from the approved design will be analyzed for design basis internal hazards and deviations from the approved design have been reconciled. b. A fire protection analysis will be performed. c. Inspection of the as-built conditions of barriers, doors, dampers, and penetrations existing within the internal hazards protective barriers separating each SBO Diesel Generator and its supporting equipment, versus construction drawings of barriers, doors, dampers, and penetrations as determined in the part (b) analysis, will be performed. d. Testing of dampers that separate each SBO Diesel Generator and its supporting equipment will be performed.	a. A report exists and concludes that the as-built basic configuration of each SBO Diesel Generator and its supporting equipment provides separation and deviations from the approved design have been reconciled. b. A report exists and concludes that completion of fire protection analysis indicates barriers, doors, dampers, and penetrations providing separation have a minimum 3-hour fire rating and mitigate the propagation of smoke to the extent that safe shutdown is not adversely affected. c. A report exists and concludes that the as-built configuration of fire barriers, doors, dampers and penetrations that separate each SBO Diesel Generator and its supporting equipment agrees with the construction drawings. d. A report exists and concludes that the dampers that separate each SBO Diesel Generator and its supporting equipment close on receipt of signal. e. A report exists and concludes that completion of the post-fire safe shutdown analysis indicates that at least one success path comprised of the minimum set of SSC is available for safe shutdown. f. A report exists and concludes that the completion of the internal flooding analysis for each SBO Diesel Generator and its supporting equipment indicates that the impact of internal flooding is contained within the electrical division of origin. NaN. A report exists and concludes that each of the SBO Diesel Generator and supporting equipment flood protection features that maintain the impact of internal flooding to each SBO Diesel Generator and its supporting equipment of origin are installed and agree with the construction drawings and deviations from the approved design have been reconciled. h. A report exists and concludes that the completion of the Switchgear Building and Turbine Building internal hazards separation barrier analysis indicates that the impact of internal hazards, including fire and flood, is contained within the mechanical division of hazard origination.

Table 2.4-11— {Switchgear Building Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
		e. A post-fire safe shutdown analysis will be performed. f. An internal flooding analysis for each SBO Diesel Generator and its supporting equipment will be performed. g. A walkdown of the electrical divisions features identified in the internal flooding analysis in part (f) that maintain the impact of the internal flooding to each SBO Diesel Generator and its supporting equipment of origin will be performed and deviations from the approved design have been reconciled. h. An analysis to identify the internal hazards separation barrier limits will be performed.	
5	For the Switchgear Building below grade concrete foundation and walls, a low water to cement ratio concrete and improved concrete mixture design will be utilized.	Tests will be conducted to ensure the concrete meets specific parameters.	The concrete utilized to construct the as-built Switchgear Building below grade concrete foundation and walls met the following: a. A maximum water to cementitious materials ratio of 0.45. b. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.

Table 2.4-12— {Warehouse Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Warehouse Building does not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An inspection of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Warehouse Building will not impact the ability of any safety-related structure, system or component to perform its safety function. The report confirms that the minimum separation distance of the as-built Warehouse Building from the nearest Seismic Category I structure, system or component is greater than 200 ft.

Table 2.4-13— {Security Access Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Security Access Building does not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An inspection of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Security Access Building will not impact the ability of any safety-related structure, system or component to perform its safety function. The report confirms that the minimum separation distance of the as-built Security Access Building from the nearest Seismic Category I structure, system or component is greater than 200 ft.

Table 2.4-14— {Central Gas Supply Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Central Gas Supply Building does not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An inspection of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Central Gas Supply Building will not impact the ability of any safety-related structure, system or component to perform its safety function. The report confirms that the minimum separation distance of the as-built Central Gas Supply Building from the nearest Seismic Category I structure, system or component is greater than 1600 ft.

Table 2.4-15— {Grid Systems Control Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Grid Systems Control Building does not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An inspection of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Grid Systems Control Building will not impact the ability of any safety-related structure, system or component to perform its safety function. The report confirms that the minimum separation distance of the as-built Grid Systems Control Building from the nearest Seismic Category I structure, system or component is greater than 700 ft.

Table 2.4-16— {Circulating Water Cooling Tower Structure Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Circulating Water Cooling Tower Structure does not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An inspection of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Circulating Water Cooling Tower Structure will not impact the ability of any safety-related structure, system or component to perform its safety function. The report confirms that the minimum separation distance of the as-built Circulating Water Cooling Tower Structure from the nearest Seismic Category I structure, system or component is greater than 1800 ft.

Table 2.4-17— {Circulating Water Pump Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Circulating Water Pump Building does not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An inspection of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Circulating Water Pump Building will not impact the ability of any safety-related structure, system or component to perform its safety function. The report confirms that the minimum separation distance of the as-built Circulating Water Pump Building from the nearest Seismic Category I structure, system or component is greater than 1700 ft.

Table 2.4-18— {Circulating Water Makeup Intake Structure Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Circulating Water Makeup Intake Structure does not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	a. An analysis of the as-designed structure will be conducted. b. An inspection will be performed to verify the as-built Circulating Water Makeup Intake Structure is installed as specified on the construction drawings and deviations from the approved design have been reconciled.	a. A report exists and concludes that under seismic loads the as asdesigned Circulating Water Makeup Intake Structure will not impact the ability of any safety-related structure, system or component to perform its safety function. The report confirms that the: ♦ As-designed reinforced concrete embedded structure of the Circulating Water Makeup Intake Structure is designed to the same requirements as a Seismic Category I structure. ♦ Collapse of the as-designed above-grade steel superstructure does not impair the integrity of Seismic Category I structures, systems or components, nor result in incapacitating injury to control room occupants. b. A report exists that concludes the as-built Circulating Water Makeup Intake Structure agrees with construction drawings and deviations from the approved design are reconciled.
2	For the Circulating Water Makeup Intake Structure below grade concrete foundation and walls, a low water to cement ratio concrete and improved concrete mixture will be utilized.	Tests, inspections, or a combination of tests and inspections will be conducted to ensure the concrete meets the low water to cement ratio limit.	The concrete utilized to construct the as-built Circulating Water Makeup Intake Structure below grade concrete foundation and walls met the following: a. A maximum water to cementitious materials ratio of 0.40. b. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.

Table 2.4-19— {Desalinization / Water Treatment Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Desalinization / Water Treatment Building does not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An inspection of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Desalinization / Water Treatment Building will not impact the ability of any safety-related structure, system or component to perform its safety function. The report confirms that the minimum separation distance of the as-built Desalination / Water Treatment Building from the nearest Seismic Category I structure, system or component is greater than 1600 ft.

Table 2.4-20— {Ultimate Heat Sink Makeup Water Intake Structure Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	There are four divisions of the UHS Makeup Water Intake Structure Ventilation System.	Inspection of the as-built system shall be conducted to verify that there are four divisions of the UHS Makeup Water Intake Structure Ventilation System.	An inspection report exists and confirms that the as-built UHS Makeup Water Intake Structure Ventilation System has four divisions.
2	Each of the four safety related mechanical divisions of the UHS Makeup Water Intake Structure Ventilation System are physically separated from each other.	An inspection will be performed.	Each of the four safety related mechanical divisions of the as-built UHS Makeup Water Intake Structure Ventilation System is physically separated from other mechanical divisions by structural barriers, 3-hour fire barriers, or a combination of structural and 3-hour barriers.
3	Electrical Independence is provided on connections between each of the four safety related divisions of the UHS Makeup Water Intake Structure Ventilation System.	a. Analyses will be performed to determine the test specification for electrical isolation devices on connections between the four safety related UHS Makeup Water Intake Structure Ventilation System divisions. b. Type tests, analyses, or a combination of type tests and analyses will be performed on the electrical isolation devices between the four safety related UHS Makeup Water Intake Structure Ventilation System divisions. c. Inspections will be performed on connections between the four safety related UHS Makeup Water Intake Structure Ventilation System divisions.	a. A test plan exists that provides the test specification for determining whether a device is capable of preventing the propagation of credible electrical faults on connections between the four safety related UHS Makeup Water Intake Structure Ventilation System divisions. b. A report exists and concludes that the Class 1E isolation devices used between the four safety related UHS Makeup Water Intake Structure Ventilation System divisions prevent the propagation of credible electrical faults. c. Class 1E electrical isolation devices exist on connections between the four safety related UHS Makeup Water Intake Structure Ventilation System divisions.

Table 2.4-20— {Ultimate Heat Sink Makeup Water Intake Structure Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
4	Each safety related division of the UHS Makeup Water Intake Structure Ventilation System powered by their respective Class 1E division.	Tests will be performed to verify each safety related division of the UHS Makeup Water Intake Structure Ventilation System is independently powered by their respective Class 1E division.	A Report exists that concludes each safety related division of the as-built UHS Makeup Water Intake Structure Ventilation System is independently powered by their respective Class 1E division.
5	a. Components of the UHS Makeup Water Intake Structure Ventilation System identified in Table 2.4-35 as ASME AG-1 Code are designed in accordance with ASME AG-1 Code requirements. b. Components of the UHS Makeup Water Intake Structure Ventilation System identified in Table 2.4-35 as ASME AG-1 Code are fabricated in accordance with ASME AG-1 Code requirements, including welding requirements. c. Components of the UHS Makeup Water Intake Structure Ventilation System identified in Table 2.4-35 as ASME AG-1 Code are inspected and tested in accordance with ASME AG-1 Code requirements.	a. Inspections will be performed to verify the existence of ASME AG-1 Code Design Verification Reports. b. Inspections will be performed to verify components are fabricated in accordance with ASME AG-1 Code requirements. c. Inspections and tests will be performed on the components.	a. ASME AG-1 Code Design Verification Reports (AA-4400) exist for Makeup Water Intake Structure Ventilation System components identified in Table 2.4-35 as ASME AG-1 Code. b. For UHS Makeup Water Intake Structure Ventilation System components identified in Table 2.4-29 as ASME AG-1 Code, reports exist and conclude that the component meets ASME AG-1 Code requirements, including welding requirements. c. For UHS Makeup Water Intake Structure Ventilation System components identified in Table 2.4-35 as ASME AG-1 Code, reports exist and conclude that the components meet ASME AG-1 Code inspection and testing requirements.

Table 2.4-20— {Ultimate Heat Sink Makeup Water Intake Structure Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
6	a. The UHS Makeup Water Intake Structure Ventilation System equipment identified as Seismic Category I in Table 2.4-35 can withstand seismic design basis loads without loss of safety function. b. The UHS Makeup Water Intake Structure Ventilation System equipment are designated Seismic Category I in Table 2.4-35, and can withstand seismic design basis loads without loss of the safety function. c. Portions of the UHS Makeup Water Intake Structure Ventilation System piping and ducting identified as Seismic Category I in Figure 2.4-2 can withstand seismic design basis loads without loss of safety function.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the UHS Makeup Water Intake Structure Ventilation System equipment-identified as Seismic Category I in Table 2.4-35 using analytical assumptions, or under conditions which bound the Seismic Category I design requirements. b. Inspections will be performed of the Seismic Category I UHS Makeup Water Intake Structure Ventilation System equipment identified in Table 2.4-29 to verify that the equipment, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the UHS Makeup Water Intake Structure Ventilation System equipment identified as Seismic Category I in Table 2.4-35 can withstand design basis seismic loads without loss of safety function. b. Inspection reports exist and conclude that the as-built Seismic Category I UHS Makeup Water Intake Structure Ventilation System equipment in Table 2.4-35, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the UHS Makeup Water Intake Structure Ventilation System piping and ducting identified as Seismic Category I in Figure 2.4-2 can withstand seismic design basis loads without loss of safety function.

Table 2.4-20— {Ultimate Heat Sink Makeup Water Intake Structure Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
	d. Portions of the UHS Makeup Water Intake Structure Ventilation System piping and ducting identified as Seismic Category I in Figure 2.4-2 can withstand seismic design basis loads without loss of safety function.	c. Type tests, analyses or a combination of type tests and analyses will be performed on the piping and ducting identified as Seismic Category I in Figure 2.4-2 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements. d. Inspections will be performed of the Seismic Category I UHS Makeup Water Intake Structure Ventilation System piping and ducting identified in Figure 2.4-2 to verify that the piping and ducting, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).	d. Inspection reports exist and conclude that the as-built Seismic Category I UHS Makeup Water Intake Structure Ventilation System piping and ducting identified in Figure 2.4-2, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).

Table 2.4-20— {Ultimate Heat Sink Makeup Water Intake Structure Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
7	Each safety related division of the UHS Makeup Water Intake Structure Ventilation System maintains the UHS Makeup Water Intake Structure pump room at a minimum temperature of 41°F (5°C) and a maximum temperature of 104°F (40°C) during operation of its associated division of UHS Makeup Water System.	a. An analysis to determine the heating and cooling capacity of each division of the UHS Makeup Water Intake Structure Ventilation System required to maintain the UHS Makeup Water Intake Structure pump room temperature 41°F (5°C) and 104°F (40°C) during operation of its associated division of UHS Makeup Water System will be performed. b. An inspection of the equipment manufacturer's documentation for each safety related UHS Makeup Water Intake Structure Ventilation System air handling unit to verify it meets the minimum required heating/ cooling capacity determined in the analysis (part a) will be performed.	a. A report exists which documents the minimum heating and cooling capacity of each safety related division of the UHS Makeup Water Intake Structure Ventilation System required to maintain the UHS Makeup Water Intake Structure pump room temperature 41°F (5°C) and 104°F (40°C) during operation of its associated division of UHS Makeup Water System. b. Each safety related UHS Makeup Water Intake Structure Ventilation System air handling unit is rated in the equipment manufacturer's documentation with greater than or equal to the minimum required heating/cooling capacity determined in the (part a) analysis.
8	Each safety related division of the UHS Makeup Water Intake Structure Ventilation System is initiated automatically.	Tests of the as-built system will be conducted by supplying a simulated signal to each as-built division.	A report exists that concludes that each safety related division of the as-built UHS Makeup Water Intake Structure Ventilation System starts upon receipt of a simulated automatic initiation signal.

Table 2.4-21— {Fire Protection Building Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	a. The Fire Protection Building Ventilation System equipment identified as Seismic Category II-SSE in the part (e) analysis can withstand seismic design basis loads without loss of function. b. The Fire Protection Building Ventilation System equipment are designated Seismic Category II-SSE in the part (e) analysis, and can withstand seismic design basis loads without loss of the safety function. c. Portions of the UHS Fire Protection Building System piping and ducting identified as Seismic Category I identified in the part (e) analysis can withstand seismic design basis loads without loss of safety function. d. Portions of the UHS Fire Protection Building System piping and ducting identified as Seismic Category I identified in the part (e) analysis can withstand seismic design basis loads without loss of safety function. e. The Fire Protection Building Ventilation System equipment, piping, and ducting identified as Seismic Category II-SSE can withstand seismic design basis loads without loss of function.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the Fire Protection Building Ventilation System equipment, identified as Seismic Category II-SSE in the part (e) analysis using analytical assumptions, or under conditions which bound the Seismic Category I design requirements. b. Inspections will be performed of the as-built Seismic Category II-SSE Fire Protection Building Ventilation System equipment identified in the part (e) analysis to verify that the equipment, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. Type tests, analyses or a combination of type tests and analyses will be performed on the piping and ducting identified as Seismic Category I identified in the part (e) analysis using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Fire Protection Building Ventilation System equipment identified as Seismic Category II-SSE in the part (e) analysis can withstand seismic design basis loads without loss of function. b. Inspection reports exist and conclude that the as-built Seismic Category IISSE Fire Protection Building Ventilation System equipment identified in the part (e) analysis, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the UHS Fire Protection Building System piping and ducting identified as Seismic Category I identified in the part (e) analysis can withstand seismic design basis loads without loss of safety function. d. Inspection reports exist and conclude that the as-built Seismic Category I UHS Fire Protection Building System piping and ducting identified in the part (e) analysis, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). e. A report exists indicating the Category II-SSE equipment, piping, and ducting of the Fire Protection Building Ventilation System.

Table 2.4-21— {Fire Protection Building Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
		d. Inspections will be performed of the Seismic Category I UHS Fire Protection Building System piping and ducting identified in the part (e) analysis to verify that the piping and ducting, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). e. An analysis to identify the Category II-SSE equipment, piping, and ducting of the Fire Protection Building Ventilation System will be performed.	
2	The Fire Protection Building Ventilation System maintains the environment of the Fire Protection Building within the most limiting operating requirements for the diesel driven fire pumps, and its supporting equipment.	Tests, analyses, or a combination of tests and analyses will be performed.	The as-built Fire Protection Building Ventilation System maintains the temperature within a range that supports operation of the diesel driven fire pumps, and its supporting equipment.
3	The Fire Protection Building Ventilation System starts upon receipt of a simulated automatic initiation signal.	A test of the as-built system will be conducted by supplying a simulated automatic signal to the system.	The as-built Fire Protection Building Ventilation System starts upon receipt of a simulated automatic initiation signal.

Table 2.4-22— {Ultimate Heat Sink Makeup Water System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	There are four divisions of the UHS Makeup Water System.	Inspection of the as-built system shall be conducted to verify that there are four divisions of the UHS Makeup Water System.	An inspection report exists and confirms that the as-built UHS Makeup Water System has four divisions.
2	Each division of the UHS Makeup Water System is independently powered by their respective Class 1E division.	Tests will be performed to verify each division of the UHS Makeup Water System is independently powered by their respective Class 1E division.	A report exists that concludes each division of the as-built UHS Makeup Water System is independently powered by their respective Class 1E division.
3	Electrical Independence is provided on connections between each of the four divisions of the UHS Makeup Water System.	a. Analyses will be performed to determine the test specification for electrical isolation devices on connections between the four UHS Makeup Water System divisions. b. Type tests, analyses, or a combination of type tests and analyses will be performed on the electrical isolation devices between the four UHS Makeup Water System divisions. c. Inspections will be performed on connections between the four UHS Makeup Water System divisions.	a. A test plan exists that provides the test specification for determining whether a device is capable of preventing the propagation of credible electrical faults on connections between the four UHS Makeup Water System divisions. b. A report exists and concludes that the Class 1E isolation devices used between the four UHS Makeup Water System divisions prevent the propagation of credible electrical faults. c. Class 1E electrical isolation devices exist on connections between the four UHS Makeup Water System divisions.
4	Each division of the UHS Makeup Water System shall be electrically independent.	Inspections and/or analysis of the as-built system shall be conducted.	For the as-built UHS Makeup Water, electrical isolation exists between each division of Class 1E components and between Class 1E components and non-class 1E components.

Table 2.4-22— {Ultimate Heat Sink Makeup Water System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
5	The UHS Makeup Water System equipment identified as Seismic Category I in Table 2.4-29 can withstand seismic design basis loads without loss of safety function.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the UHS Makeup Water System equipment listed as Seismic Category I in Table 2.4-29 using analytical assumptions, or under conditions which bound the Seismic Category I design requirements. b. Inspections will be performed of the Seismic Category I UHS Makeup Water System equipment listed in Table 2.4-29 to verify that the equipment, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the UHS Makeup Water System equipment listed as Seismic Category I in Table 2.4-29 can withstand seismic design basis loads without loss of safety function. b. Inspection reports exist and conclude that the as-built Seismic Category I UHS Makeup Water System equipment listed in Table 2.4-29, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).

Table 2.4-22— {Ultimate Heat Sink Makeup Water System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
6	a. The UHS Makeup Water System equipment that could impact the capability of Seismic Category I structures, systems, or components to perform their safety function are designated as Seismic Category II identified in Table 2.4-29, and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function. b. The UHS Makeup Water System equipment that could impact the capability of Seismic Category I structures, systems, or components to perform its safety function are designated as Seismic Category II in Table 2.4-29, and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function. c. UHS Makeup Water System piping that could impact the capability of Seismic Category I structures, systems, or components to perform its safety function are identified as Seismic Category II in Figure 2.4-1, and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the UHS Makeup Water System equipment listed as Seismic Category II in Table 2.4-29 using analytical assumptions, or under conditions, which bound the Seismic Category II design requirements to verify the piping and equipment can withstand seismic design basis loads without impacting the capability of equipment designated Seismic Category I from performing its safety function. b. Inspections will be performed of the Seismic Category II UHS Makeup Water System equipment listed in Table 2.4-29 to verify that the equipment, including anchorage, is installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. Type tests, analyses or a combination of type tests and analyses will be performed on the piping identified as Seismic Category II in Figure 2.4-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the UHS Makeup Water System equipment listed as Seismic Category II in Table 2.4-29 can withstand seismic design basis loads without impacting the capability of equipment designated Seismic Category I from performing its safety function. b. Inspection reports exist and conclude that the as-built Seismic Category II UHS Makeup Water System equipment listed in Table 2.4-29, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. Seismic qualification reports (SQDP, EQDP, or analyses) exist and concludes that the asdesigned UHS Makeup Water System piping identified as Seismic Category II inFigure 2.4-1 can withstand seismic design basis loads without impacting the capability of equipment designated Seismic Category I from performing its safety function.

Table 2.4-22— {Ultimate Heat Sink Makeup Water System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
	d. UHS Makeup Water System piping that could impact the capability of Seismic Category I structures, systems, or components to perform its safety function are identified as Seismic Category II in Figure 2.4-1, and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function.	d. Inspections will be performed of the as-built Seismic Category II UHS Makeup Water System piping identified in Figure 2.4-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).	d. Inspection reports exist and conclude that the as-built Seismic Category II UHS Makeup Water System piping identified in Figure 2.4-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).
7	The UHS Makeup Water Intake Structure dualflow traveling screens and screen wash pump are designed to withstand seismic design basis loads without a loss of their mechanical function.	a. Type tests, analyses, or a combination of type tests and analyses will be performed to verify that the UHS Makeup Water dual flow traveling screens and screen wash pump can withstand seismic design basis loads without a loss of mechanical function. b. Inspections will be performed to verify that the as-built UHS Makeup Water dual flow traveling screens and screen wash pump, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the as-built UHS Makeup Water dual flow traveling screens and screen wash pump can withstand seismic design basis loads without a loss of mechanical function. b. Inspection reports exist and conclude that the as-built UHS Makeup Water dual flow traveling screens and screen flow wash pump, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).

Table 2.4-22— {Ultimate Heat Sink Makeup Water System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
8	a. Components listed in Table 2.4-29 as ASME Section III are designed in accordance with ASME Section III Code requirements. b. Components listed in Table 2.4-29 as ASME Code Section III are fabricated in accordance with the requirements of ASME Section III. c. Pressure boundary welds on components listed in Table 2.4-29 as ASME Code Section III are in accordance with ASME Code Section III requirements. d. Components listed in Table 2.4-29 as ASME Code Section III retain their pressure boundary integrity at their design pressure.	a. Inspections will be performed to verify the existence of ASME Section III Code Design Reports. b. Inspections will be performed to verify that the design report has been revised to reflect as-built deviations from the design if applicable. c. Inspections of pressure boundary welds will be performed to verify that welding is performed in accordance with ASME Code Section III requirements. d. Hydrostatic tests will be performed on the components.	a. ASME Section III Code Design Reports (NCA- 3550) exist for components listed as ASME Section III in Table 2.4-29. b. For components listed as ASME Code Section III in Table 2.4-29, the as-built component satisfies design requirements of ASME Code Section III as demonstrated in the Design Report (NCA-3550). c. For components listed as ASME Code Section III in Table 2.4-29, ASME Code Section III Data Reports (NCA-8000) exist and conclude that pressure boundary welding has been performed in accordance with ASME Code Section III. d. For components listed as ASME Code Section III in Table 2.4-29, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.
9	a. Portions of the UHS Makeup Water System piping shown as ASME Section III in Figure 2.4-1 is are designed in accordance with ASME Section III Code requirements. b. Portions of UHS Makeup Water System piping shown as ASME Code Section III inFigure 2.4-1 are installed in accordance with Code Section III Design Report. c. Portions of the CCWS piping shown as ASME Code Section III in Figure 2.4-1 are installed and inspected in accordance with ASME Code Section III requirements.	a. Inspections of the ASME Code Section III Design Reports (NCA-3550) and associated reference documents will be performed. b. Analyses to reconcile as-built deviations to the ASME Code Design Reports (NCA-3550) will be performed. Piping analyzed using timehistory methods will be reconciled to the as-built information. c. An inspection of the as-built piping will be performed.	a. ASME Code Section III Design Reports (NCA- 3550) exist and conclude that portions of the UHS Makeup Water System piping shown as ASME Code Section III in Figure 2.4-1 comply with ASME Code Section III requirements. b. For portions of the UHS Makeup Water System piping shown as ASME Code Section III in Figure 2.4-1, ASME Code Data Reports (N-5) exist and conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the as-built condition. c. For portions of the as-built CCWS piping shown as ASME Code Section III in Figure 2.7.1-1, N–5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.

Table 2.4-22— {Ultimate Heat Sink Makeup Water System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
10	Pressure boundary welds in portions of the UHS Makeup Water System piping as shown as ASME Code Section III in Figure 2.4-1 are in accordance with ASME Code Section III.	Inspections of pressure boundary welds verify that welding is performed in accordance with ASME Code Section III requirements.	ASME Code Section III Data Reports exist and conclude that pressure boundary welding for portions of the UHS Makeup Water System piping shown as ASME Code Section III in Figure 2.4-1 has been performed in accordance with ASME Code Section III.
11	Portions of the UHS Makeup Water System components shown as ASME Code Section III inFigure 2.4-1 retain their pressure boundary integrity at their design pressure.	Hydrostatic tests will be performed on the system.	For portions of the UHS Makeup Water System components shown as ASME Code Section III in Figure 2.4-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.
12	Portions the UHS Makeup Water System piping shown as ASME Code Section III in Figure 2.4-1 retain their pressure boundary integrity at their design pressure.	Hydrostatic tests will be performed on the system.	For portions of the UHS Makeup Water System piping shown as ASME Code Section III in Figure 2.4-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.
13	The materials utilized in the equipment and piping of the UHS Makeup Water System are compatible with brackish water.	a. An analysis of the materials utilized in the as-built equipment will be performed. b. An inspection of the as-built piping will be conducted.	a. A report exists and concludes that the materials utilized in the equipment installed in the UHS Makeup Water System that is in contact with the water is compatible with brackish water. b. The as-built piping for the UHS Makeup Water System is composed of either carbon steel SA-106 Grade B with a rubber liner, or ASME SB-675 stainless steel.
14	The UHS Makeup Water Intake Structure bar screens have a large enough face area that potential blockage to the point of preventing the minimum required flow through them is not a concern.	a. Analyses will be performed of the equipment. b. Inspections will be performed to verify the as-built equipment is installed as specified on the construction drawings and deviations from the approved design have been reconciled.	a. A report exists and concludes that the face area for the as-built UHS Makeup Water Intake Structure bar screens is sufficient to permit the minimum required flow in the event of worst-case blockage of the screens. 1. A report exists and concludes that the as-built face area for the as-built UHS Makeup Water Intake Structure bar screens agrees with construction drawings and deviations from the approved design are reconciled.

Table 2.4-22— {Ultimate Heat Sink Makeup Water System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
15	The Class 1E valves in the UHS Makeup Water System perform the required function under system design conditions. 1. UHS makeup pump discharge valves open on pump start. 2. Debris filter blowdown line isolation valves will open during the debris filter backwash cycle. 3. The pump min-flow recirculation valve opens in the event the pump discharge valve fails to open.	Tests and analyses or a combination of tests and analyses will be performed to demonstrate the ability of the Class 1E valves to change position under system design conditions.	1. UHS makeup pump discharge valves open on pump start. 2. Debris filter blowdown line isolation valves will open during the debris filter backwash cycle. 3. The pump min-flow recirculation valve opens in the event the pump discharge valve fails to open.
16	Each division of the UHS Makeup Water System can be initiated manually.	Tests of the as-built system will be conducted to verify that each division of the UHS Makeup Water System can be initiated manually.	An inspection report exists and concludes that each division of the as-built UHS Makeup Water System starts upon receipt of a manual initiation signal.
17	Each division of the UHS Makeup Water System is capable of delivering ≥ 300 gallons per minute of makeup water to the associated ESW cooling tower basin to maintain the minimum basin water level.	Testing and analysis will be performed to verify that each division of the UHS Makeup Water System provides makeup water in order to maintain the minimum water level in the ESW cooling tower basins.	A report exists and concludes that each division of the as-built UHS Makeup Water System is capable of delivering greater than the minimum required flow rate of ≥ 300 gallons per minute of makeup water.
18	The UHS Makeup Water pumps listed in Table 2.4-29 have sufficient NPSH.	Testing and analyses will be performed to verify NPSHA for the UHS Makeup Water pumps listed in Table 2.4-29.	The UHS Makeup Water pumps listed in Table 2.4-29 have NPSHA that is greater than net positive suction head required (NPSHR) at system rated flow.
19	The motor-operated valves listed in Table 2.4-29 can perform the function listed in Table 2.4-29 under system operating conditions.	Tests and analyses or a combination of tests and analyses will be performed to demonstrate the ability of the valves listed in Table 2.4-29 to change position as listed in Table 2.4-29 under system operating conditions.	The valve changes position as listed Table 2.4-29 under system operating conditions.
20	Check valves listed inTable 2.4-29 function as listed in Table 2.4-29.	Tests will be performed for the operation of the check valves listed in Table 2.4-29.	The check valves listed in Table 2.4-29 perform the functions listed in Table 2.4-29.
21	Each division of the UHS Makeup Water System has a surveillance test bypass line as shown in Figure 2.4-1 that allows flow testing of the system during plant operation.	Tests of the as-built system will be conducted.	The as-built surveillance test bypass line for each division the UHS Makeup Water System as shown in Figure 2.4-1 allows flow testing of the system during plant operation.

Table 2.4-22— {Ultimate Heat Sink Makeup Water System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
22	a. Each UHS Makeup Water Intake Structure dual flow traveling screen is designed to be manually rotated, if needed, following a loss of motive power or failure of its electric motor drive. b. Each UHS Makeup Water Intake Structure dual flow traveling screen is designed to be manually cleaned using an external water source following a loss of its screen wash system.	a. Tests will be performed on each UHS Makeup Water Intake Structure dual flow traveling screen to verify it can be manually rotated upon a loss of motive power or failure of its electric motor drive. b. Tests will be performed on each UHS Makeup Water Intake Structure dual flow traveling screen to verify it can be manually cleaned using an external water source following a loss of its screen wash system.	a. Test reports exist and conclude that upon a simulated loss of motive power or failure of its electric motor drive, each UHS Makeup Water Intake Structure dual flow traveling screen can be manually rotated. b. Test reports exist and conclude that upon a simulated loss of its screen wash system, each UHS Makeup Water Intake Structure dual flow traveling screen can be manually cleaned using an external water source.

Table 2.4-23— {Raw Water Supply System Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Raw Water Supply System delivers makeup water to the Fire Water Distribution System's fire water storage tanks in accordance with the guidance provided in RG 1.189, Rev. 1 (i.e., capable of delivering at least 300,000 gallons (1.14 million liters) within an 8-hour period).	A test of the as-built system will be performed.	The as-built Raw Water Supply System delivers a total flow rate of ≥ 625 gallons (2366 liters) per minute to the as-built fire water storage tanks.

Table 2.4-24— {Fire Water Distribution System Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 1 of 4)

	Commitment Wording	Inspection, Test, or Analysisign	Acceptance Criteria
1	The fire protection storage tanks are in close proximity to the fire protection building.	An inspection of the as-built location of the tanks will be conducted.	An inspection report exists that verifies the as-built fire protection storage tanks are located within 50 ft of the as-built Fire Protection Building, as measured from the closest outside surfaces of the structures.
2	a. The Fire Water Distribution System equipment identified as Seismic Category II-SSE in the part (e) analysis can withstand seismic design basis loads without loss of safety function. b. The Fire Water Distribution System equipment are designated-Seismic Category I in the part (e) analysis, and can withstand seismic design basis loads without loss of the safety function. c. Portions of the Fire Water Distribution System piping identified as Seismic Category I in the part (e) analysis can withstand seismic design basis loads without loss of safety function.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on Fire Water Distribution System equipment identified in the part (e) analysis using analytical assumptions, or under conditions which bound the Seismic Category II-SSE design requirements. b. Inspections will be performed of the Seismic Category II-SSE Fire Water Distribution System equipment identified in the part (e) analysis to verify that the equipment, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Fire Water Distribution System equipment identified in the part (e) analysis as Seismic Category II-SSE can withstand seismic design basis loads without loss of safety function. b. Inspection reports exist and conclude that the as-built Seismic Category II-SSE Fire Water Distribution System equipment identified in the part (e) analysis, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Fire Water Distribution System piping identified as Seismic Category I in the part (e) analysis can withstand seismic design basis loads without loss of safety function.

Table 2.4-24— {Fire Water Distribution System Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 2 of 4)

	Commitment Wording	Inspection, Test, or Analysisign	Acceptance Criteria
	d. Portions of the Fire Water Distribution System piping identified as Seismic Category I in the part (e) analysis can withstand seismic design basis loads without loss of safety function. e. The Fire Water Distribution System equipment and piping identified as Seismic Category II-SSE can withstand seismic design basis loads without loss of safety function.	c. Type tests, analyses or a combination of type tests and analyses will be performed on the piping identified as Seismic Category I in the part (e) analysis using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements. d. Inspections will be performed of the Seismic Category I Fire Water Distribution System piping identified in the part (e) analysis to verify that the piping and ducting, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). e. An analysis to identify the Category II-SSE equipment and piping of the Fire Water Distribution System will be performed.	d. Inspection reports exist and conclude that the as-built Seismic Category I Fire Water Distribution System piping identified in the part (e) analysis, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). e. A report exists indicating the Category II-SSE equipment and piping of the Fire Water Distribution System.

Table 2.4-24— {Fire Water Distribution System Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 3 of 4)

	Commitment Wording	Inspection, Test, or Analysisign	Acceptance Criteria
3	a. The Fire Water Distribution System equipment that could impact the capability of Seismic Category I structures, systems, or components to perform its safety function are designated as Seismic Category II-SSE in the part (e) analysis , and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function. b. The Fire Water Distribution System equipment that could impact the capability of Seismic Category I structures, systems, or components to perform its safety function are designated as Seismic Category II-SSE in the part (e) analysis , and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function. c. Fire Water Distribution System piping that could impact the capability of Seismic Category I structures, systems, or components to perform its safety function are identified as Seismic Category II-SSE in the part (e) analysis, and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the Fire Water Distribution System equipment identified in the part (e) analysis using analytical assumptions, or under conditions, which bound the Seismic Category IISSE design requirements to verify the equipment can withstand seismic design basis loads without impacting the capability of equipment designated Seismic Category I from performing its safety function. b. Inspections will be performed of the Seismic Category II-SSE Fire Water Distribution System equipment identified in the part (e) analysis to verify that the equipment, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Fire Water Distribution System equipment identified as Seismic Category II-SSE in the part (e) analysis can withstand seismic design basis loads without impacting the capability of equipment designated Seismic Category I from performing its safety function. b. Inspection reports exist and conclude that the as-built Seismic Category II-SSE Fire Water Distribution System equipment identified in the part (e) analysis, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. Seismic qualification reports (SQDP, EQDP, or analyses) exist and concludes that the asdesigned Fire Water Distribution System piping identified as Seismic Category II-SSE in the part (e) analysis can withstand seismic design basis loads without impacting the capability of equipment designated Seismic Category I from performing its safety function.

Table 2.4-24— {Fire Water Distribution System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysisign	Acceptance Criteria
	d. Fire Water Distribution System piping that could impact the capability of Seismic Category I structures, systems, or components to perform its safety function are identified as Seismic Category II-SSE in the part (e) analysis, and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function. e. The Fire Water Distribution System equipment and piping that could impact the capability of Seismic Category I structures, systems, or components to perform its safety function are designated as Seismic Category II-SSE and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function.	c. Type tests, analyses or a combination of type tests and analyses will be performed on the piping identified as Seismic Category II-SSE in the part (e) analysis using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements. d. Inspections will be performed of the as-built Seismic Category II-SSE Fire Water Distribution System piping identified in the part (e) analysis to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). e. An analysis to identify the Category I equipment and piping of the Fire Water Distribution System will be performed.	d. Inspection reports exist and conclude that the as-built Seismic Category II-SSE Fire Water Distribution System piping identified in the part (e) analysis, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). e. A report exists indicating the Category I equipment and piping of the Fire Water Distribution System.
4	The Fire Water Distribution System utilizing the diesel driven fire pumps can be initiated manually.	Tests of the as-built system will be conducted.	Fire Water Distribution System utilizing the diesel driven fire pumps starts upon receipt of a manual initiation signal.

Table 2.4-25— {Fire Suppression Systems Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	a. The Standpipe and Hose Station components for the UHS Makeup Water Intake Structure are designated Seismic Category II-SSE in the part (c) analysis and can withstand seismic design basis loads without a loss of the function listed in the part (c) analysis. b. The Standpipe and Hose Station components for the UHS Makeup Water Intake Structure are designated Seismic Category II-SSE in the part (c) analysis and can withstand seismic design basis loads without a loss of the function listed in the part (c) analysis. c. The Standpipe and Hose Station components for the UHS Makeup Water Intake Structure are designated Seismic Category II-SSE and can withstand seismic design basis loads without a loss of the function listed.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the UHS Makeup Water Intake Structure Standpipe and Hose Station components identified as Seismic Category II-SSE in the part (c) analysis using analytical assumptions, or under conditions which bound the Seismic Category II-SSE design requirements. b. Inspections will be performed of the as-built Seismic Category IISSE UHS Makeup Water Intake Structure Standpipe and Hose Station components identified in the part (c) analysis to verify that the as-built components, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. An analysis to identify the Category II components of the Standpipe and Hose Station for the UHS Makeup Water Intake Structure will be performed.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category II-SSE UHS Makeup Water Intake Structure Standpipe and Hose Station components identified in the part (c) analysis can withstand seismic design basis loads without a loss of the function listed in the part (c) analysis. b. Inspection reports exist and conclude that the as-built Seismic Category IISSE UHS Makeup Water Intake Structure Standpipe and Hose Station components identified in the part (c) analysis , including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. A report exists indicating the Category II components of the Standpipe and Hose Station for the UHS Makeup Water Intake Structure.

Table 2.4-25— {Fire Suppression Systems Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 2 of 4)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
2	a. The Standpipe and Hose Station components for the UHS Makeup Water Intake Structure are designated Seismic Category II-SSE in the part (c) analysis , and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function. b. The Standpipe and Hose Station components for the UHS Makeup Water Intake Structure are designated Seismic Category II-SSE in the part (c) analysis , and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function. c. The Standpipe and Hose Station components for the UHS Makeup Water Intake Structure are designated Seismic Category II-SSE and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the Seismic Category II-SSE UHS Makeup Water Intake Structure Standpipe and Hose Station components identified in the part (c) analysis using analytical assumptions, or under conditions which bound the Seismic Category II-SSE design requirements to verify the components can withstand seismic design basis loads without impacting the capability of equipment designated Seismic Category I from performing its safety function. b. Inspections will be performed of the Seismic Category II-SSE UHS Makeup Water Intake Structure Standpipe and Hose Station components identified in the part (c) analysis to verify that the as-built components, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. An analysis to identify the Category II components of the Standpipe and Hose Station for the UHS Makeup Water Intake Structure will be performed.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category II-SSE UHS Makeup Water Intake Structure Standpipe and Hose Station components identified in the part (c) analysis can withstand seismic design basis loads without impacting the capability of equipment designated Seismic Category I from performing its safety function. b. Inspection reports exist and conclude that the as-built Seismic Category II-SSE UHS Makeup Water Intake Structure Standpipe and Hose Station components identified in the part (c) analysis, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. A report exists indicating the Category II components of the Standpipe and Hose Station for the UHS Makeup Water Intake Structure.

Table 2.4-25— {Fire Suppression Systems Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 3 of 4)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
3	a. The Fire Suppression System components for the UHS Makeup Water Intake Structure are designated as Seismic Category II in the part (c) analysis, and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function. b. The Fire Suppression System components for the UHS Makeup Water Intake Structure are designated as Seismic Category II in the part (c) analysis, and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function. c. The Fire Suppression System components for the UHS Makeup Water Intake Structure are designated as Seismic Category II and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the Seismic Category II UHS Makeup Water Intake Structure Fire Suppression System components identified in the part (c) analysis using analytical assumptions, or under conditions which bound the Seismic Category II design requirements to verify the components can withstand seismic design basis loads without impacting the capability of equipment designated Seismic Category I from performing its safety function. b. Inspections will be performed of the Seismic Category II UHS Makeup Water Intake Structure Fire Suppression System components identified in the part (c) analysis to verify that the as-built components designated Seismic Category II, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. An analysis to identify the Category II components of the Fire Suppression System for the UHS Makeup Water Intake Structure will be performed.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category II UHS Makeup Water Intake Structure Fire Suppression System components, identified in the part (c) analysis can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function. b. Inspection reports exist and conclude that the as-built Seismic Category II UHS Makeup Water Intake Structure Fire Suppression System components identified in the part (c) analysis, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. A report exists indicating the Category II components of the Fire Suppression System for the UHS Makeup Water Intake Structure.

Table 2.4-25— {Fire Suppression Systems Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 4 of 4)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
4	a. The Fire Suppression System components for the Fire Protection Building are designated as Seismic Category II in the part (c) analysis, and can withstand design basis seismic loads without a loss of the function listed in the part (c) analysis. b. The Fire Suppression System components for the Fire Protection Building are designated as Seismic Category II in the part (c) analysis, and can withstand design basis seismic loads without a loss of the function listed in the part (c) analysis. c. The Fire Suppression System components for the Fire Protection Building are designated as Seismic Category II, and can withstand design basis seismic loads without a loss of the function.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the Fire Suppression System components for the Fire Protection Building identified as Seismic Category II in the part (c) analysis using analytical assumptions, or under conditions which bound the Seismic Category II design requirements. b. Inspections will be performed of the as-built Seismic Category II Fire Suppression System components for the Fire Protection Building identified in the part (c) analysis to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. An analysis to identify the Category II components of the Fire Suppression System for the Fire Protection Building will be performed.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category II Fire Suppression System components for the Fire Protection Building identified in the part (c) analysis can withstand seismic design basis loads without a loss of the function listed in the part (c) analysis. b. Inspection reports exist and conclude that the as-built Seismic Category II Fire Suppression System components for the Fire Protection Building identified in the part (c) analysis, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. A report exists indicating the Category II components of the Fire Suppression System for the Fire Protection Building.

Table 2.4-26— {Offsite Power System Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 1 of 3)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	a. The Offsite Power System supplies at least two preferred power circuits. b. The Offsite Power System supplied preferred power circuits are physically separate. c. The offsite transmission power, instrumentation, and control circuits are independent.	a. Inspections of the as-built system will be conducted. b. 1. Inspections will be conducted. 2. Inspections will be conducted. c. Tests of the as-built system will be conducted by powering only one offsite power circuit / system at a time.	a. The as-built Offsite Power System has at least two preferred power circuits. b. 1. A report exists and concludes the as-built Offsite Power System supplied preferred power circuits from the switchyard to the emergency and auxiliary transformers are separated by a minimum distance of 50 feet. 2. A report exists and concludes the as-built Offsite Power System supplied preferred power circuit transmission lines do not have a common takeoff structure and do not use a common structure for support. c. Only the circuit under test is powered.
2	Each offsite power circuit is sized to supply the station safety-related and nonsafety-related loads during normal and off normal operation by having the Emergency Auxiliary Transformers and Normal Auxiliary Transformers are sized to supply their load requirements.	Analyses of as-built station safety-related and nonsafety-related loads will be performed.	A report exists and concludes that each as-built offsite power circuit from the transmission network through the main step-up transformer and including the Emergency Auxiliary Transformers and Normal Auxiliary Transformers is sized to meet the load requirements during normal and off normal operation.
3	Each Emergency Auxiliary Transformer is connected to the Switchyard via an independent circuit, sized to supply the four Emergency Power Supply System divisions.	a. An analysis will be performed of the Emergency Auxiliary Transformer. b. An inspection of the as-built system will be conducted.	a. A report exists and concludes that each asdesigned Emergency Auxiliary Transformer is connected to the as-built Switchyard via an independent circuit, sized to supply the four Emergency Power Supply divisions. b. Each as-built Emergency Auxiliary Transformer is connected to the as-built Switchyard via an independent circuit, sized to supply the four Emergency Power Supply divisions.
4	The AC power sources may be manually transferred from the normal offsite circuit to the alternate offsite circuit.	Tests of the as-built system will be conducted.	The as-built AC power sources can be manually transferred from the normal offsite circuit to the alternate offsite circuit.
5	The AC power sources may be automatically transferred from the normal offsite circuit to the alternate offsite circuit.	Tests of the as-built system will be conducted.	The as-built AC power sources can be automatically transferred from the normal offsite circuit to the alternate offsite circuit.

Table 2.4-26— {Offsite Power System Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 2 of 3)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
6	The RCP free coastdown frequency rate for a complete loss of forced reactor coolant flow analysis due to a loss of offsite power event bounds the maximum transmission system frequency decay rate.	Type tests, analyses, or a combination of type tests and analyses will be performed to determine that the RCP free coastdown frequency rate for a complete loss of forced reactor coolant flow analysis due to a loss of offsite power event bounds the maximum transmission system frequency decay rate.	Reports exist and conclude that the RCP free coastdown frequency rate for a complete loss of forced reactor coolant flow analysis due to a loss of offsite power event bounds the maximum transmission system frequency decay rate.
7	Electrical grounding exists for the 500 kV switchyard.	Inspections will be conducted to verify the as-built grounding for the 500 kV switchyard is installed as specified on the design drawings and deviations from the approved design have been reconciled.	A report exists and concludes that the as-built grounding for the 500 kV switchyard is in accordance with the design drawings and documentation.
8	Lightning protection exists for the 500 kV switchyard.	Inspections will be conducted to verify the as-built lightning protection for the 500 kV switchyard is installed as specified on the design drawings and deviations from the approved design have been reconciled.	A report exists and concludes that the as-built lightning protection for the 500 kV switchyard is in accordance with the design drawings and documentation.
9	Each EAT does not impact the ability of other EAT, NATs, or the main step-up transformers (MSU) to perform their safety function as a result of a fire.	a. A fire protection analysis will be performed.	a. A report exists and concludes that completion of fire protection analysis indicates barriers, doors, dampers, and penetrations providing separation between the EATs and the other EATs, NATs, or the MSUs have a minimum 3-hour fire rating and mitigate the propagation of smoke to the extent that safe shutdown is not adversely affected.

Table 2.4-26— {Offsite Power System Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 3 of 3)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
		b. Inspection of the as-built conditions of barriers, doors, dampers, and penetrations existing within the internal hazards protective barriers separating the EATs and the other EATs, NATs, or the MSUs, versus construction drawings of barriers, doors, dampers, and penetrations will be performed and deviations from the approved design have been reconciled.	b. A report exists and concludes that the as-built configuration of fire barriers, doors, dampers and penetrations that separate the EATs and the other EATs, NATs, or the MSUs agrees with the construction drawings.
		c. Testing of dampers that separate the EATs and the other EATs, NATs, or the MSUs will be performed.	c. A report exists and concludes that the dampers that separate the EATs and the other EATs, NATs, or the MSUs close on receipt of signal.
		d. A post-fire safe shutdown analysis will be performed.	d. A report exists and concludes that completion of the post-fire safe shutdown analysis indicates that at least one success path comprised of the minimum set of SSC is available for safe shutdown.

Table 2.4-27— {Power Generation System Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Main Generator Switchyard circuit breakers shall be sized to supply the load requirements.	An analysis will be performed to determine the as-built loading for the Main Generator Switchyard circuit breakers	The as-built Main Generator Switchyard circuit breakers are rated for a load greater than the analyzed load.

Table 2.4-28— {Class 1E Emergency Power Supply Components for Site-Specific Systems Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 1 of 5)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Class 1E electrical distribution equipment listed in the part (c) analysis is qualified Seismic Category I can withstand seismic design basis loads without loss of safety function.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the Class 1E electrical distribution equipment listed as Seismic Category I in the part (c) analysis using analytical assumptions, or under conditions which bound the Seismic Category I design requirements. b. Inspections will be performed of the Seismic Category I Class 1E electrical distribution equipment listed in the part (c) analysis to verify that the equipment, including anchorage, are installed as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. An analysis to identify the Class 1E electrical distribution equipment will be performed.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I Class 1E electrical distribution equipment listed in the part (c) analysis can withstand design basis seismic loads without loss of safety function. b. Inspection reports exist and conclude that the as-built Seismic Category I Class 1E electrical distribution equipment listed in the part (c) analysis, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses). c. A report exists indicating the Class 1E electrical distribution equipment.

Table 2.4-28— {Class 1E Emergency Power Supply Components for Site-Specific Systems Inspections, Tests, Analyses, and Acceptance Criteria}

(Page 2 of 5)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
2	Displays exist or can be retrieved in the MCR and the RSS for the following Class 1E equipment: 1. UHS Makeup Water System (makeup water pumps, pump discharge valves, pump min-flow recirculation valves, pump test bypass line isolation valves, initial fill isolation value, and debris filter blowdown line isolation valves). 2. UHS Makeup Water Intake Structure Ventilation System (ventilation fans).	a. Tests will be performed for the retrievability of the displays in the MCR or the RSS. b. Tests will be performed for the retrievability of the displays in the MCR or the RSS.	a. The displays for the following Class 1E equipment can be retrieved in the MCR: 1. UHS Makeup Water System (makeup water pumps, pump discharge valves, pump min-flow recirculation valves, initial fill isolation value, pump test bypass line isolation valves, and debris filter blowdown line isolation valves). 2. UHS Makeup Water Intake Structure Ventilation System (ventilation fans). b. The displays for the following Class 1E equipment can be retrieved in the RSS: 1. UHS Makeup Water System (makeup water pumps, pump discharge valves, pump min-flow recirculation valves, initial fill isolation value, pump test bypass line isolation valves, and debris filter blowdown line isolation valves). 2. UHS Makeup Water Intake Structure Ventilation System (ventilation fans).

Table 2.4-28— {Class 1E Emergency Power Supply Components for Site-Specific Systems Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 3 of 5)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
3	Controls for the following Class 1E equipment exist in the MCR and the RSS: 1. UHS Makeup Water System (makeup water pumps, pump discharge valves, initial fill isolation value, pump min-flow recirculation valves, pump test bypass line isolation valves, and debris filter blowdown line isolation valves). 2. UHS Makeup Water Intake Structure Ventilation System (ventilation fans).	a. Tests will be performed to verify the existence of control signals from the MCR and the RSS to the equipment. b. Tests will be performed to verify the existence of control signals from the MCR and the RSS to the equipment.	a. The controls for the following Class 1E equipment exist in the MCR: 1. UHS Makeup Water System (makeup water pumps, pump discharge valves, initial fill isolation value, pump min-flow recirculation valves, pump test bypass line isolation valves, and debris filter blowdown line isolation valves). 2. UHS Makeup Water Intake Structure Ventilation System (ventilation fans). b. The controls for the following Class 1E equipment exist in the RSS: i. UHS Makeup Water System (makeup water pumps, pump discharge valves, pump min-flow recirculation valves, initial fill isolation value, pump test bypass line isolation valves, and debris filter blowdown line isolation valves). ii. UHS Makeup Water Intake Structure Ventilation System (ventilation fans).

Table 2.4-28— {Class 1E Emergency Power Supply Components for Site-Specific Systems Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 4 of 5)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
4	The Class 1E motor control centers, and transformers and their feeder breakers and load breakers are sized to supply their load requirements, for the following systems: 1. UHS Makeup Water System. 2. UHS Makeup Water Intake Structure Ventilation System.	a. An analysis of the Class 1E motor control centers, and transformers and their feeder breakers and load breakers will be performed. b. An inspection of the Class 1E motor control centers, and transformers and their feeder breakers and load breakers will be performed.	a. A report exists that concludes that the ratings for the as-built Class 1E motor control centers, and transformers and their feeder breakers and load breakers are greater than their load requirements, for the following systems: 1. UHS Makeup Water System 2. UHS Makeup Water Intake Structure Ventilation System b. A report exists and concludes that the ratings of the installed Class 1E motor control centers, and transformers and their feeder breakers and load breakers meet the analysis criteria.
5	Electrical grounding exists for the ground bus of the UHS Makeup Water Intake Structure motor control center.	Inspections will be conducted of the as-installed equipment.	A report exists and concludes that the as-built electrical grounding in accordance with the design drawings and documentation exists for the ground bus of the UHS Makeup Water Intake Structure motor control center.
6	Electrical grounding exists for the neutral point of the UHS Makeup Water Intake Structure distribution transformer.	Inspections will be conducted of the as-installed equipment.	A report exists and concludes that the as-built electrical grounding in accordance with the design drawings and documentation exists for the neutral point of the UHS Makeup Water Intake Structure distribution transformer.
7	Lightning protection exists for the UHS Makeup Water Intake Structure.	Inspections will be conducted of the as-installed equipment.	A report exists and concludes that the as-built lightning protection in accordance with the design drawings and documentation exists for the UHS Makeup Water Intake Structure.
8	The UHS Makeup Water Intake Structure lightning protection system is connected to the grounding grid.	Inspections will be conducted of the as-installed equipment.	A report exists and concludes that the as-built lightning protection system for the UHS Makeup Water Intake Structure is connected to the grounding grid in accordance with the design drawings and documentation.
9	Displays exist or can be retrieved in the MCR and the RSS for the switchyard instrumentation (circuit breaker position Indication and control voltage).	a. Tests will be performed for the retrievability of the displays in the MCR or the RSS.	a. The displays for the switchyard instrumentation (circuit breaker position Indication and control voltage) can be retrieved in the MCR

Table 2.4-28— {Class 1E Emergency Power Supply Components for Site-Specific Systems Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 5 of 5)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
9		b. Tests will be performed for the retrievability of the displays in the MCR or the RSS.	b. The displays for the switchyard instrumentation (circuit breaker position Indication and control voltage) can be retrieved in the RSS:

Table 2.4-29— {Ultimate Heat Sink (UHS) Makeup Water System Component Mechanical Design}
(Page 1 of 4)

Component Description	Component Tag Number	Component Location	ASME Code	Function	Seismic Category
UHS Makeup Water Pump Train 1	30PED10 AP001 A	UHS Makeup Pump Room	Class 3	Run	I
UHS Makeup Water Pump Discharge Check Valve Train 1	30PED10 AA201 A	UHS Makeup Pump Room	Class 3	Open – Close	I
UHS Makeup Water Pump Discharge Isolation Valve Train 1	30PED10 AA001 A	UHS Makeup Pump Room	Class 3	Open	I
UHS Makeup Water Pump Minimum Flow Valve Train 1	30PED10 AA002 A	UHS Makeup Pump Room	Class 3	Close	I
UHS Makeup Water Pump Discharge Strainer Train 1	30PED10 AT001 A	UHS Makeup Pump Room	Class 3	Run	I
UHS Makeup Water Pump Discharge Strainer Debris Removal Valve Train 1	30PED10AA006 A	UHS Makeup Pump Room	Class 3	Close	I
UHS Makeup Water Pump Discharge Strainer Isolation Valve Train 1	Later	UHS Makeup Pump Room	Class 3	Open	I
UHS Makeup Water Pump Initial Fill Check Valve Train 1	Later	UHS Makeup Pump Room	Class 3	Close	I
UHS Makeup Water Pump Initial Fill Isolation Valve Train 1	Later	UHS Makeup Pump Room	Class 3	Close	I
Piping and Manual Valves Train 1	Later	UHS Makeup Intake Structure	Class 3 / B31.1	Pressure Boundary	I / II
Buried Piping Train 1	Later	Yard Area	Class 3	Pressure Boundary	I
Air Release/Vacuum Breaker Valve Train 1	Later	UHS Makeup Pump Room	Class 3	Open – Close	I
UHS Makeup Water Dual Flow Traveling Screen Train 1	Later	UHS Makeup Intake Structure	N/A	Run	II
UHS Makeup Water Intake Structure Bar Screen Train 1	Later	UHS Makeup Intake Structure	N/A	—	II
UHS Makeup Water Screen Wash Pump Train1	Later	UHS Makeup Intake Structure	B31.1	Run	II
UHS Makeup Water Pump Train 2	30PED20 AP001 A	UHS Makeup Pump Room	Class 3	Run	I
UHS Makeup Water Pump Discharge Check Valve Train 2	30PED20 AA201 A	UHS Makeup Pump Room	Class 3	Open – Close	I
UHS Makeup Water Pump Discharge Isolation Valve Train 2	30PED20 AA001 A	UHS Makeup Pump Room	Class 3	Open	I

Table 2.4-29— {Ultimate Heat Sink (UHS) Makeup Water System Component Mechanical Design}
(Page 2 of 4)

Component Description	Component Tag Number	Component Location	ASME Code	Function	Seismic Category
UHS Makeup Water Pump Minimum Flow Valve Train 2	30PED20 AA002 A	UHS Makeup Pump Room	Class 3	Close	I
UHS Makeup Water Pump Discharge Strainer Train 2	30PED20 AT001 A	UHS Makeup Pump Room	Class 3	Run	I
UHS Makeup Water Pump Discharge Strainer Debris Removal Valve Train 2	30PED20AA006 A	UHS Makeup Pump Room	Class 3	Close	I
UHS Makeup Water Pump Discharge Strainer Isolation Valve Train 2	Later	UHS Makeup Pump Room	Class 3	Open	I
UHS Makeup Water Pump Initial Fill Check Valve Train 2	Later	UHS Makeup Pump Room	Class 3	Close	I
UHS Makeup Water Pump Initial Fill Isolation Valve Train 2	Later	UHS Makeup Pump Room	Class 3	Close	I
Piping and Manual Valves Train 2	Later	UHS Makeup Intake Structure	Class 3 / B31.1	Pressure Boundary	I / II
Buried Piping Train 2	Later	Yard Area	Class 3	Pressure Boundary	I
Air Release/Vacuum Breaker Valves Train 2	Later	UHS Makeup Pump Room	Class 3	Open – Close	I
UHS Makeup Water Dual Flow Traveling Screen Train 2	Later	UHS Makeup Intake Structure	N/A	Run	II
UHS Makeup Water Intake Structure Bar Screen Train 2	Later	UHS Makeup Intake Structure	N/A	—	II
UHS Makeup Water Screen Wash Pump Train 2	Later	UHS Makeup Intake Structure	B31.1	Run	II
UHS Makeup Water Pump Train 3	30PED30 AP001 A	UHS Makeup Pump Room	Class 3	Run	I
UHS Makeup Water Pump Discharge Check Valve Train 3	30PED30 AA201 A	UHS Makeup Pump Room	Class 3	Open – Close	I
UHS Makeup Water Pump Discharge Isolation Valve Train 3	30PED30 AA001 A	UHS Makeup Pump Room	Class 3	Open	I
UHS Makeup Water Pump Minimum Flow Valve Train 3	30PED30 AA002 A	UHS Makeup Pump Room	Class 3	Close	I
UHS Makeup Water Pump Discharge Strainer Train 3	30PED30 AT001 A	UHS Makeup Pump Room	Class 3	Run	I

Table 2.4-29— {Ultimate Heat Sink (UHS) Makeup Water System Component Mechanical Design}
(Page 3 of 4)

Component Description	Component Tag Number	Component Location	ASME Code	Function	Seismic Category
UHS Makeup Water Pump Discharge Strainer Debris Removal Valve Train 3	30PED30AA006 A	UHS Makeup Pump Room	Class 3	Close	I
UHS Makeup Water Pump Discharge Strainer Isolation Valve Train 3	Later	UHS Makeup Pump Room	Class 3	Open	I
UHS Makeup Water Pump Initial Fill Check Valve Train 3	Later	UHS Makeup Pump Room	Class 3	Close	I
UHS Makeup Water Pump Initial Fill Isolation Valve Train 3	Later	UHS Makeup Pump Room	Class 3	Close	I
Piping and Manual Valves Train 3	Later	UHS Makeup Intake Structure	Class 3 / B31.1	Pressure Boundary	I / II
Buried Piping Train 3	Later	Yard Area	Class 3	Pressure Boundary	I
Air Release/Vacuum Breaker Valves Train 3	Later	UHS Makeup Pump Room	Class 3	Open – Close	I
UHS Makeup Water Dual Flow Traveling Screen Train 3	Later	UHS Makeup Intake Structure	N/A	Run	II
UHS Makeup Water Intake Structure Bar Screen Train 3	Later	UHS Makeup Intake Structure	N/A	—	II
UHS Makeup Water Screen Wash Pump Train 3	Later	UHS Makeup Intake Structure	B31.1	Run	II
UHS Makeup Water Pump Train 4	30PED40 AP001 A	UHS Makeup Pump Room	Class 3	Run	I
UHS Makeup Water Pump Discharge Check Valve Train 4	30PED40 AA201 A	UHS Makeup Pump Room	Class 3	Open – Close	I
UHS Makeup Water Pump Discharge Isolation Valve Train 4	30PED40 AA001 A	UHS Makeup Pump Room	Class 3	Open	I
UHS Makeup Water Pump Minimum Flow Valve Train 4	30PED40 AA002 A	UHS Makeup Pump Room	Class 3	Close	I
UHS Makeup Water Pump Discharge Strainer Train 4	30PED40 AT001 A	UHS Makeup Pump Room	Class 3	Run	I
UHS Makeup Water Pump Discharge Strainer Debris Removal Valve Train 4	30PED40AA006 A	UHS Makeup Pump Room	Class 3	Close	I
UHS Makeup Water Pump Discharge Strainer Isolation Valve Train 4	Later	UHS Makeup Pump Room	Class 3	Open	I

Table 2.4-29— {Ultimate Heat Sink (UHS) Makeup Water System Component Mechanical Design}
(Page 4 of 4)

Component Description	Component Tag Number	Component Location	ASME Code	Function	Seismic Category
UHS Makeup Water Pump Initial Fill Check Valve Train 4	Later	UHS Makeup Pump Room	Class 3	Close	I
UHS Makeup Water Pump Initial Fill Isolation Valve Train 4	Later	UHS Makeup Pump Room	Class 3	Close	I
Piping and Manual Valves Train 4	Later	UHS Makeup Intake Structure	Class 3 / B31.1	Pressure Boundary	I / II
Buried Piping Train 4	Later	Yard Area	Class 3	Pressure Boundary	I
Air Release/Vacuum Breaker Valves Train 4	Later	UHS Makeup Pump Room	Class 3	Open – Close	I
UHS Makeup Water Dual Flow Traveling Screen Train 4	Later	UHS Makeup Intake Structure	N/A	Run	II
UHS Makeup Water Intake Structure Bar Screen Train 4	Later	UHS Makeup Intake Structure	N/A	—	II
UHS Makeup Water Screen Wash Pump Train 4	Later	UHS Makeup Intake Structure	B31.1	Run	II

Table 2.4-30— {Forebay Structure Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Tests, or Analysis	Acceptance Criteria
1	The Forebay Structure is Seismic Category I and is designed to withstand structural design basis loads and load combinations without a loss of structural integrity.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the Forebay Structure using analytical assumptions, or under conditions which bound the Seismic Category I design requirements and to determine that the Forebay Structure is designed to withstand structural design basis loads and load combinations without a loss of structural integrity. b. An inspection will be performed of the Forebay Structure to verify that the construction is as specified on the construction drawings and deviations will be reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Forebay Structure can withstand design basis seismic loads without loss of safety function and is capable of withstanding the structural design basis loads in accordance with the Structural Acceptance Criteria without a loss of structural integrity. b. Inspection reports exist and conclude that the as-built Forebay Structure is constructed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).
2	For the Forebay Structure below grade concrete foundation and walls, a low water to cement ratio concrete mixture will be utilized.	Tests, inspections, or a combination of tests and inspections will be conducted to ensure the concrete meets the low water to cement ratio limit.	The concrete utilized to construct the as-built Forebay Structure below grade concrete foundation and walls met the following: a. A maximum water to cementitious materials ratio of 0.40. b. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.

Table 2.4-31— {Waste Water Treatment Facility Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Tests, or Analysis	Acceptance Criteria
1	The Waste Water Treatment Facility does not impact the ability of any safety-related structure, system or component to perform its safety function under Extreme Environmental Loads.	a. An analysis of the Waste Water Treatment Facility will be performed to determine that it will not impact the ability of any safety-related structure system or component to perform its safety function under Extreme Environmental Loads. b. An inspection of the as-built Waste Water Treatment Facility will be performed.	a. A report exists that concludes that under Extreme Environmental Loads, the collapse of the Waste Water Treatment Facility will not impact the ability of any safety-related structure, system or component to perform its safety function. The report confirms that the minimum separation distance of the Waste Water Treatment Facility from the nearest safety-related structure, system or component is approximately 1300 feet and exceeds the height of the Waste Water Treatment Facility. b. A report exists that concludes that the as-built Waste Water Treatment Facility agrees with construction drawings and deviations from the approved design are reconciled.

Table 2.4-32— {Access Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Tests, or Analysis	Acceptance Criteria
1	The Access Building (AB) does not impact the ability of any safetyrelated structure, system or component to perform its safety function under applicable Extreme Environmental Loads.	a. An analysis of the Access Building will be performed to determine that it will not impact the ability of any safetyrelated structure, system or component to perform its safety function under Extreme Environmental Loads. b. An inspection will be performed to verify the as-built Access Building is installed as specified on the construction drawings and deviations from the approved design have been reconciled.	a. A report exists that concludes that under applicable Extreme Environmental Loads, the Access Building will not collapse and impact the ability of any safety-related structure, system or component to perform its safety function. The report also confirms that the as-built structure of the Access Building is designed to the same requirements as a Seismic Category I structure. b. A report exists that concludes that the as-built Access Building agrees with construction drawings and deviations from the approved design are reconciled.
2	For the Access Building, below grade concrete foundation and walls, a low water to cement ratio concrete and improved concrete mixture design will be utilized.	Tests will be conducted to ensure the concrete meets specific parameters.	A report exists that concludes the concrete utilized to construct the as-built Access Building below grade concrete foundation and walls have a maximum water to cementitious materials ratio of 0.45.

Table 2.4-33— {Sheet Pile Wall Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Tests, or Analysis	Acceptance Criteria
1	The Sheet Pile Wall does not impact the ability of any safetyrelated structure, system or components to perform its safety function under Extreme Environmental Loads specified.	a. An analysis of the Sheet Pile Wall will be performed to determine that it will not impact the ability of any safetyrelated structure, system or component to perform its safety function under Extreme Environmental Loads. b. An inspection will be performed to verify the as-built Sheet Pile Wall is installed as specified on the construction drawings and deviations from the approved design have been reconciled.	a. A report exists that concludes that under applicable Extreme Environmental Loads, the Sheet Pile Wall will not collapse and impact the ability of any safety-related structure, system or component to perform its safety function. The report also confirms that the minimum separation distance of the as-built Sheet Pile Wall from the nearest Seismic Category I structure, system or component is greater than 30 ft. b. A report exists that concludes that the as-built Sheet Pile Wall agrees with construction drawings and deviations from the approved design are reconciled.}

Table 2.4-34— {Waterproofing Geomembrane Under Nuclear Island Common Basemat Structures and Other Buildings Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Tests, or Analysis	Acceptance Criteria
1	Coefficient of static friction at the horizontal interface of HDPE geomembrane and sand is greater than or equal to 0.52.	Laboratory testing will be performed in accordance with ASTM D5321 and/or ASTM D6467 to verify the design coefficient of static friction at the horizontal interface of HDPE geomembrane and sand.	A report exists that concludes the coefficient of static friction at the horizontal interface of HDPE geomembrane and sand is greater than or equal to 0.52.

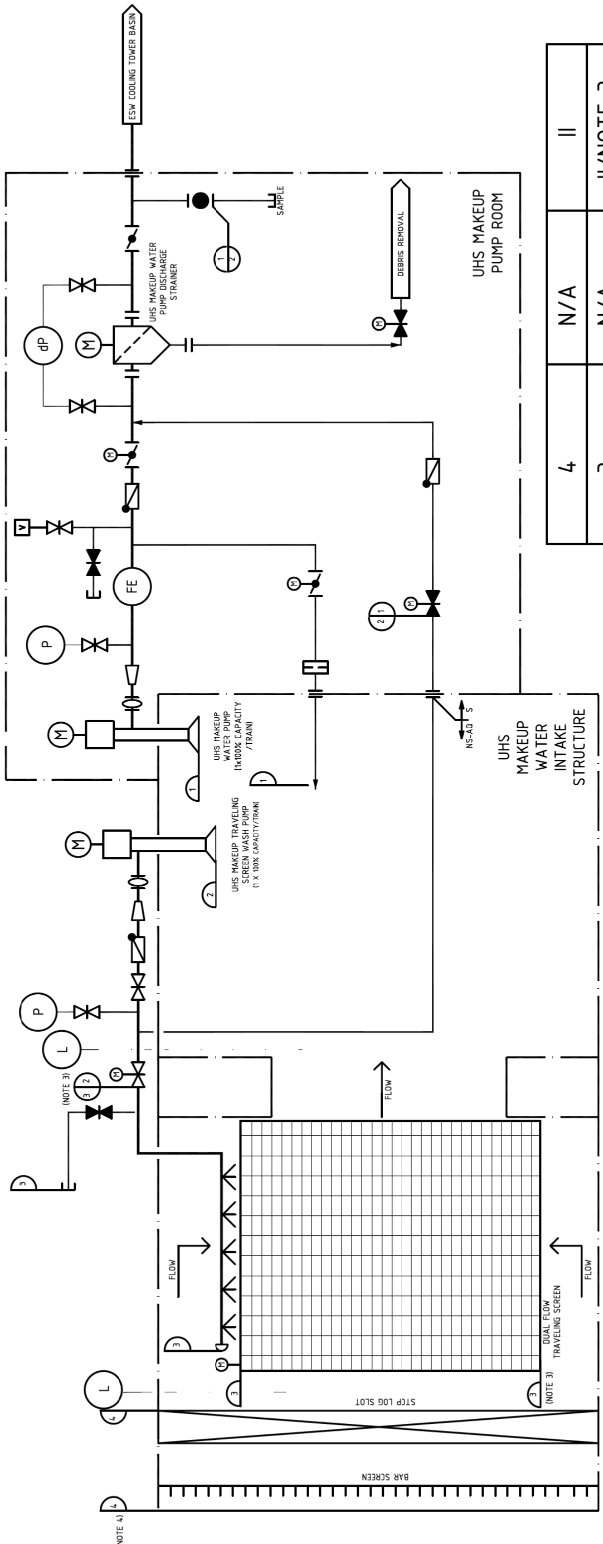
Table 2.4-35— {Ultimate Heat Sink (UHS) Makeup Intake Structure Ventilation System Component Mechanical Design}
(Page 1 of 2)

Component Description	Component Tag Number	Component Location	ASME Code	Function	Seismic Category
UHS Makeup Water Building Pump Room Air Handling Unit (AHU) Train 1		UHS Makeup Pump Room	AG-1	Run	I
UHS Makeup Water Building Air Cooled Condenser (ACC) Train 1		UHS Makeup Air Cooled Condenser Room	AG-1	Run	I
UHS Makeup Water Building Safety Related Tornado Dampers Train 1		UHS Makeup Air Cooled Condenser Room /Corridor/ Traveling Screen Room	AG-1	Open/Close	I
UHS Makeup Water Building Safety Related Manual Dampers/ Train 1		UHS Makeup Pump Room /Air Cooled Condenser Room/ Transformer Room	AG-1	Open/Close	I
Manual Dampers/ Exhaust Fan / Heaters Train 1 (NSR)		UHS Makeup Pump Room/Air Condenser Room/ Traveling Screen Room / Transformer Room/ Corridor	N/A	-	II
UHS Makeup Water Building Pump Room Air Handling Unit (AHU) Train 2		UHS Makeup Pump Room	AG-1	Run	I
UHS Makeup Water Building Air Cooled Condenser (ACC) Train 2		UHS Makeup Air Cooled Condenser Room	AG-1	Run	I
UHS Makeup Water Building Safety Related Tornado Dampers Train 2		UHS Makeup Air Cooled Condenser Room /Corridor/ Traveling Screen Room	AG-1	Open/Close	I
UHS Makeup Water Building Safety Related Manual Dampers/ Train 2		UHS Makeup Pump Room /Air Cooled Condenser Room/ Transformer Room	AG-1	Open/Close	I
Manual Dampers/ Exhaust Fan / Heaters Train 2 (NSR)		UHS Makeup Pump Room/Air Condenser Room/ Traveling Screen Room / Transformer Room/ Corridor	N/A	-	II
UHSMakeupWaterBuildingPumpRoomAirHandlingUnit(AHU)Train3		UHS Makeup Pump Room	AG-1	Run	I
UHS Makeup Water Building Air Cooled Condenser		UHS Makeup Air Cooled	AG-1	Run	I
(ACC) Train 3		Condenser Room			
UHS Makeup Water Building Safety Related Tornado Dampers Train 3		UHS Makeup Air Cooled Condenser Room/ Corridor/ Traveling Screen Room	AG-1	Open/Close	I

Table 2.4-35— {Ultimate Heat Sink (UHS) Makeup Intake Structure Ventilation System Component Mechanical Design}
(Page 2 of 2)

Component Description	Componen t Tag Number	Component Location	ASME Code	Function	Seismic Category
UHS Makeup Water Building Safety Related Manual Dampers/ Train 3		UHS Makeup Pump Room /Air Cooled Condenser Room/ Transformer Room	AG-1	Open/Close	I
Manual Dampers/ Exhaust Fan / Heaters Train 3 (NSR)		UHS Makeup Pump Room/Air Condenser Room/ Traveling Screen Room / Transformer Room/ Corridor	N/A	-	II
UHS Makeup Water Building Pump Room Air Handling Unit (AHU) Train 4		UHS Makeup Pump Room	AG-1	Run	I
UHS Makeup Water Building Air Cooled Condenser (ACC) Train 4		UHS Makeup Air Cooled Condenser Room	AG-1	Run	I
UHS Makeup Water Building Safety Related Tornado Dampers Train 4		UHS Makeup Air Cooled Condenser Room/ Corridor/ Traveling Screen Room	AG-1	Open/Close	I
UHS Makeup Water Building Safety Related Manual Dampers/ Train 4		UHS Makeup Pump Room /Air Cooled Condenser Room/ Transformer Room	AG-1	Open/Close	I
Manual Dampers/ Exhaust Fan / Heaters Train 4 (NSR)		UHS Makeup Pump Room/Air Condenser Room/ Traveling Screen Room / Transformer Room/ Corridor	N/A	-	II

Figure 2.4-1— {Ultimate Heat Sink Makeup Water System Functional Arrangement}



DESIGN AREA	ASME	SSC SEISMIC CATEGORY
1	Sec III, Cl 3	I
2	B31.1	II
3	N/A	II/NOTE 3
4	N/A	II

Figure 2.4-2— {UHS Makeup Water Intake Structure Ventilation System Functional Arrangement}